



Somerset County Council.

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# REPORT

OF THE

# MEDICAL OFFICER OF HEALTH

FOR THE YEAR

**1949**

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**J. F. DAVIDSON,**

O.B.E., M.B., Ch.B., D.P.H.,

County Medical Officer of Health.

To the Chairman and Members of the Health Committee,  
Somerset County Council.

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The Chairman, Ladies and Gentlemen,

I have the honour to submit my Thirteenth Annual Report upon the Health Administration of the County.

The Report follows the usual lines and provides in detail the necessary statistical information.

In the appropriate sections, mention is made of the duties of the Department under the National Health Service Act, and an indication is given of how this work is proceeding.

It is useless to pretend that the Public Health Service is continuing with the smoothness and precision of the past. The changes in the type of work now undertaken must lead inevitably to a new outlook which may be in some respects less satisfying than what we knew previously. Again, the conditions of service within both the medical and dental sections remain still undefined, and, undoubtedly, this in recruitment and otherwise is affecting adversely the administration of the work.

For the present, I would express the thanks of my Department to the many voluntary bodies in Somerset for their valued and most useful help.

I continue to be greatly assisted by the members of the staff, and I acknowledge also the assistance of associated Departments of the County Council.

I am,

Yours faithfully,

J. F. DAVIDSON

County Medical Officer of Health.

County Hall,  
Taunton,

August, 1950.

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## STATISTICS AND SOCIAL CONDITIONS OF THE AREA

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Area (in acres): 1,028,992.

Population (1949); 467,920.

Live Births:—Total 7,920; Legitimate 7,574; Illegitimate 346; Still births 179.

Deaths:—Total 6,167; Urban 3,064; Rural 3,103.

Rateable value:—£2,840,770 (1949).

Sum represented by a penny rate:—£11,627 (1949-50).

Birth rate:—16.92. Illegitimate births, 4.37 (per cent.).

Death rate:—13.18.

Deaths under 1 year of age:—230. Rate of infantile mortality: 29.0.

The birth rate shows a decrease from last year's figure (16.97). The percentage of illegitimate births is still high but shows a decrease from last year's figure (5.32).

The death rate (13.18) is higher than for the previous year (11.16). It is satisfactory to record that the rate of infantile mortality is 29.0.

The chief causes of death were heart diseases (2,023 deaths), cancer and other forms of malignant disease (917 deaths), bronchitis and pneumonia (442 deaths), and tuberculosis (159 deaths).

The essential statistical returns covering births, infantile mortality, and deaths are given in tables I to V.

TABLE I.

## Causes of, and Ages at Death during the Year 1949

CAUSES OF DEATH.	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT						
	All ages.	Under 1 year.	1 and under 5 years	5 and under 15 years	15 and under 45 years	45 and under 65 years	65 and upwards.
Typhoid and paratyphoid fevers	0	0	0	0	0	0	0
Cerebro spinal fever ... ..	4	0	2	0	1	0	1
Scarlet fever ... ..	0	0	0	0	0	0	0
Whooping cough ... ..	1	1	0	0	0	0	0
Diphtheria ... ..	0	0	0	0	0	0	0
Tuberculosis of respir. system..	141	0	0	0	72	51	18
Other forms of tuberculosis ...	18	1	2	3	6	5	1
Syphilitic diseases ... ..	9	0	0	0	1	5	3
Influenza ... ..	55	0	1	0	1	11	42
Measles ... ..	2	1	1	0	0	0	0
Acute poliomyelitis and polio-encephalitis ... ..	6	0	0	3	3	0	0
Acute inf. encephalitis ... ..	4	0	0	0	1	0	3
Cancer of buc. cavity & œsoph. (M), uterus (F) ... ..	69	0	0	0	4	29	36
Cancer of stomach & duodenum	177	0	0	0	5	42	130
Cancer of breast ... ..	91	0	0	0	8	38	45
Cancer of all other sites ... ..	580	1	1	2	35	194	347
Diabetes ... ..	39	0	0	1	6	9	23
Intra-cranial vascular lesions ...	810	0	0	0	4	139	667
Heart disease ... ..	2023	0	2	0	37	275	1709
Other diseases of circ. system...	226	0	0	0	3	31	192
Bronchitis ... ..	244	2	1	1	4	38	198
Pneumonia ... ..	198	24	4	1	15	25	129
Other respiratory disease ... ..	81	0	0	0	6	32	43
Ulcer of stomach or duodenum	50	0	0	0	3	17	30
Diarrhœa, under 2 years ... ..	8	7	1	0	0	0	0
Appendicitis ... ..	16	0	2	1	0	5	8
Other digestive diseases ... ..	126	2	2	1	11	35	75
Nephritis ... ..	182	0	0	1	14	41	126
Puerperal and post-abortion. sepsis	2	0	0	0	2	0	0
Other maternal causes ... ..	7	0	0	0	7	0	0
Premature birth ... ..	57	57	0	0	0	0	0
Congenital malformations, birth injuries, infantile diseases ...	136	120	4	3	4	5	0
Suicide ... ..	60	0	0	0	9	33	18
Road traffic accidents ... ..	58	0	1	9	21	13	14
Other violent causes ... ..	133	10	6	7	19	27	64
All other causes ... ..	554	4	18	9	40	79	404
All causes	6167	230	48	42	342	1179	4326

TABLE II.

Causes of Death at all Ages in each District during the Year 1949.

## RURAL DISTRICTS.

CAUSES OF DEATH.	AXBRIDGE.	BATHAVON.	BRIDGWATER.	CHARD.	CLUTTON.	DULVERTON.	FROME.	LANGPORT.	LONG ASHTON.	SHEPTON MALLET.	TAUNTON.	WELLINGTON.	WELLS.	WILLITON.	WINCANTON.	YEOVIL.	TOTAL RURAL DISTRICTS.
Typhoid and paratyphoid fevers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cerebro spinal fever ...	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	3
Scarlet fever ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Whooping cough ...	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Diphtheria ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis of respir. system..	5	6	6	0	6	3	0	3	2	3	5	1	3	6	4	5	58
Other forms of tuberculosis ...	3	1	0	0	1	0	0	0	0	0	1	0	0	1	0	3	10
Syphilitic diseases ...	0	1	0	0	0	0	0	0	1	0	1	0	1	0	0	0	4
Influenza ...	2	6	6	2	0	0	1	0	3	3	1	0	2	2	2	2	32
Measles ...	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
Acute poliomyelitis and polio-encephalitis ...	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
Acute inf. encephalitis ...	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	3
Cancer of buc. cavity & œsoph. (M), uterus (F) ...	5	3	0	1	3	0	1	8	2	1	2	1	0	1	1	4	33
Cancer of stomach & duodenum	7	6	8	4	13	2	2	6	7	4	7	4	1	4	5	12	92
Cancer of breast ...	8	7	0	3	2	0	0	2	7	3	2	5	1	2	1	3	46
Cancer of all other sites ...	27	21	20	12	19	7	14	10	28	12	30	6	14	21	18	32	291
Diabetes ...	4	3	1	1	1	0	1	2	0	1	4	1	0	2	5	0	26
Intra-cranial vascular lesions ...	51	32	35	23	29	2	14	28	34	15	30	13	16	30	30	28	410
Heart disease ...	110	98	70	54	61	23	58	64	90	48	66	35	42	53	74	71	1017
Other diseases of circ. system...	7	6	11	5	7	4	6	5	7	2	10	7	1	5	16	10	109
Bronchitis ...	7	11	16	10	10	4	7	1	6	5	9	5	2	6	4	14	117
Pneumonia ...	11	10	6	4	6	3	2	7	7	9	9	2	9	5	6	2	98
Other respiratory disease ...	3	2	3	2	2	0	3	3	2	2	4	1	1	3	2	5	38
Ulcer of stomach or duodenum	1	4	2	0	0	0	0	3	1	2	3	1	0	1	0	1	19
Diarrhœa, under 2 years ...	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
Appendicitis ...	0	2	0	0	1	0	0	0	1	0	1	2	0	2	0	1	10
Other digestive diseases ...	7	7	5	4	4	2	1	2	2	7	2	4	2	5	6	6	66
Nephritis ...	10	6	8	5	4	1	3	3	9	4	3	2	3	6	8	2	77
Puerperal and post-abort. sepsis	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Other maternal causes ...	0	0	1	1	0	0	0	0	1	0	1	1	0	0	0	0	5
Premature birth ...	2	4	8	2	1	0	3	3	2	0	3	0	0	0	3	6	37
Congenital malformations, birth injuries, infantile diseases ...	9	4	7	3	9	0	0	9	6	6	3	5	2	3	6	5	77
Suicide ...	3	2	3	2	4	1	2	1	3	4	2	1	3	1	3	3	38
Road traffic accidents ...	1	7	2	3	4	0	4	1	2	2	6	1	1	2	5	0	41
Other violent causes ...	10	8	3	5	2	1	2	5	6	2	7	1	1	6	7	6	72
All other causes ...	31	22	12	19	18	6	7	10	26	11	18	13	13	16	17	27	266
All causes ...	328	281	234	165	209	59	131	176	256	147	230	113	119	184	223	248	3103

TABLE III.

Causes of Death at all Ages in each District during the Year 1949.

## URBAN DISTRICTS.

CAUSES OF DEATH.	BRIDGWATER.	BURNHAM.	CHARD.	CLEVEDON.	CREWKERNE.	FROME.	GLASTONBURY.	ILMINSTER.	KEYNSHAM.	MINEHEAD.	NORTON-RADSTOCK.	PORTISHEAD.	SHEPTON MALLET.	STREET.	TAUNTON.	WATCHET.	WELLINGTON.	WELLS.	WESTON-SUPER-MARE.	YEOVIL.	TOTAL URBAN DISTRICTS.	COUNTY TOTAL.
Typhoid and paratyphoid fevers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cerebro spinal fever ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	4
Scarlet fever ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Whooping cough ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Diphtheria ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis of respir. system...	8	1	3	1	0	5	4	1	3	7	3	1	2	3	8	0	4	1	17	11	83	141
Other forms of tuberculosis ...	0	0	0	2	0	0	1	0	1	0	0	0	0	0	2	0	0	0	1	1	8	18
Syphilitic diseases ...	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	5	9
Influenza ...	3	2	1	3	0	3	0	0	1	3	0	1	0	3	0	0	0	1	0	2	23	55
Measles ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Acute poliomyelitis and polio-encephalitis ...	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	1	0	4	6
Acute inf. encephalitis ...	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
Cancer of buc. cavity & œsoph. (M), uterus (F) ...	4	0	1	1	0	1	1	0	0	2	2	0	0	0	5	1	2	1	9	6	36	69
Cancer of stomach & duodenum	6	3	2	2	4	5	0	0	1	5	2	1	0	3	16	0	5	4	17	9	85	177
Cancer of breast ...	5	3	1	1	1	4	1	2	0	3	1	1	0	2	6	0	0	0	7	7	45	91
Cancer of all other sites ...	22	15	9	22	6	17	8	3	8	9	12	7	4	8	37	6	6	7	55	28	289	580
Diabetes ...	3	0	0	1	0	0	0	0	0	0	0	0	0	2	3	1	0	0	1	2	13	39
Intra-cranial vascular lesions ...	29	23	7	21	4	24	6	5	24	19	9	5	13	2	43	4	19	6	99	38	400	810
Heart disease ...	104	34	23	43	13	62	28	3	33	57	38	13	17	24	144	9	34	22	214	91	1006	2023
Other diseases of circ. system...	11	8	4	8	2	4	1	1	1	6	6	0	2	1	25	1	6	0	15	15	117	226
Bronchitis ...	11	2	6	6	5	9	3	2	4	5	2	2	3	3	18	4	1	2	30	9	127	244
Pneumonia ...	7	1	1	2	2	9	3	2	4	8	5	3	3	2	16	3	1	1	17	10	100	198
Other respiratory disease ...	6	2	0	5	1	0	2	0	1	1	5	3	0	0	7	0	0	0	9	1	43	81
Ulcer of stomach or duodenum	4	3	0	0	0	3	1	0	0	2	0	2	0	1	4	1	0	0	7	3	31	50
Diarrhœa, under 2 years ...	1	0	1	2	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	6	8
Appendicitis ...	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	1	6	16
Other digestive diseases ...	3	1	1	7	1	4	1	2	1	3	2	0	3	1	5	1	1	2	16	5	60	126
Nephritis ...	6	8	0	8	1	8	4	0	4	3	9	5	3	4	14	0	5	7	11	5	105	182
Puerperal and post-abort. sepsis	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Other maternal causes ...	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	7
Premature birth ...	5	0	0	1	0	2	0	0	0	0	1	0	1	1	3	0	1	0	1	4	20	57
Congenital malformations, birth injuries, infantile diseases ...	8	1	1	3	1	0	0	0	0	2	1	1	0	2	18	0	2	1	8	10	59	136
Suicide ...	2	1	1	0	0	2	2	1	0	1	3	2	0	1	0	0	2	1	3	0	22	60
Road traffic accidents ...	5	0	0	0	1	1	0	0	0	0	0	3	1	0	2	0	1	0	3	0	17	58
Other violent causes ...	10	2	1	5	1	3	2	3	3	0	3	0	0	0	5	1	1	1	14	6	61	133
All other causes ...	29	5	7	29	7	20	7	2	8	7	14	8	2	4	33	3	7	15	63	18	288	554
All causes ...	295	115	71	174	50	187	75	27	100	143	120	59	54	68	417	35	99	73	620	282	3064	6167

TABLE IV.

Table showing, for each Rural District, the number of Births and Deaths, the number of Deaths of Infants, also the Birth Rate, Death Rate, and Rate of Infantile Mortality.

RURAL DISTRICTS.	Births.	Deaths.	Deaths under 1 year.	Population.	Birth Rate.	Death Rate.	Infantile Mortality Rate.
Axbridge	427	328	16	25,340	16.85	12.94	37.4
Bathavon	427	281	11	22,210	19.22	12.65	25.7
Bridgwater	349	234	14	19,400	17.99	12.06	40.1
Chard	197	165	6	12,030	16.38	13.72	30.4
Clutton	295	209	8	17,220	17.13	12.13	27.1
Dulverton	76	59	1	4,600	16.52	12.82	13.1
Frome	186	131	4	10,410	17.86	12.59	21.5
Langport	242	176	15	12,890	18.77	13.66	61.9
Long Ashton	430	256	10	24,480	17.57	10.42	23.2
Shepton Mallet	165	147	6	10,730	15.38	13.70	36.3
Taunton	303	230	7	18,620	16.28	12.35	23.1
Wellington	152	113	6	7,801	19.48	14.48	39.4
Wells	189	119	4	10,020	18.87	11.88	21.1
Williton	158	184	4	12,760	12.38	14.42	25.3
Wincanton	284	223	9	16,590	17.12	13.44	31.6
Yeovil	364	248	14	18,740	19.43	12.23	38.4
Totals of Rural Districts	4,244	3,103	135	243,841	17.41	12.73	31.8

TABLE V.

Table showing, for each Urban District, the number of Births and Deaths, the number of Deaths of Infants, also the Birth Rate, Death Rate, and Rate of Infantile Mortality.

URBAN DISTRICTS.	Births.	Deaths.	Deaths under 1 year.	Population.	Birth Rate.	Death Rate.	Infantile Mortality Rate.
Bridgwater	467	295	14	22,360	20.88	13.19	29.9
Burnham	121	115	1	9,152	13.22	12.57	8.2
Chard	99	71	2	5,284	18.74	13.44	20.2
Clevedon	151	174	5	9,799	15.41	17.75	33.1
Crewkerne	71	50	1	4,120	17.24	12.13	14.0
Frome	167	187	2	11,370	14.69	16.44	11.9
Glastonbury	88	75	1	5,199	16.92	14.42	11.3
Hminster	51	27	0	2,656	19.21	10.16	0.0
Keynsham	107	100	2	7,738	13.83	12.92	18.6
Minehead	88	143	3	7,232	12.17	19.77	34.0
Norton-Radstock	206	120	4	11,920	17.28	10.07	19.4
Portishead	84	59	1	4,416	19.02	13.37	11.9
Shepton Mallet	83	54	1	4,640	17.88	11.63	12.0
Strcet	93	68	4	5,389	17.26	12.62	43.0
Taunton	612	417	21	33,340	18.36	12.51	34.3
Watchet	49	35	0	2,515	19.48	13.92	0.0
Wellington	112	99	4	7,389	15.16	13.40	35.7
Wells	91	73	2	6,070	14.99	12.02	22.0
Weston-s.-Mare	562	620	13	39,830	14.11	15.57	23.1
Yeovil	374	282	14	23,666	15.81	11.92	37.4
Totals of Urban Districts	3,676	3,064	95	224,079	16.42	13.68	25.8
Administrative County	7,920	6,167	230	467,920	16.92	13.18	29.0
England and Wales 1949	—	—	—	—	16.7	11.7	32.0

## NOTIFICATION OF INFECTIOUS DISEASES.

TABLE VI.

	Measles.	Scarlet Fever.	Diphtheria.	Enteric and Paratyphoid Fevers.	Puerperal Pyrexia.	Ophthalmia Neonatorum.	Cerebro-spinal Meningitis.	Dysentery.	Whooping Cough.	Pneumonia.	Acute Poliomyelitis.	Encephalitis Lethargica.
<b>URBAN</b>												
Bridgwater	251	22	0	0	3	0	0	0	12	5	0	0
Burnham	185	5	0	0	1	0	0	0	9	16	2	0
Chard	2	1	0	0	3	0	0	0	2	0	0	0
Clevedon	201	3	0	0	2	0	0	1	17	3	2	0
Crewkerne	11	7	0	0	1	0	0	0	0	0	0	0
Frome	99	34	0	0	2	0	0	0	5	1	0	0
Glastonbury	4	3	0	0	0	0	0	0	10	0	1	0
Ilminster	45	16	0	0	1	0	0	0	0	0	0	0
Keynsham	108	11	0	1	1	0	0	0	1	7	2	0
Minehead	15	3	0	0	1	0	0	0	32	0	5	0
Norton-Radstock	19	4	0	0	0	0	0	0	25	8	3	0
Portishead	25	0	0	0	1	0	0	0	49	2	0	0
Shepton Mallet	2	2	0	0	0	1	0	1	3	0	2	0
Street	11	5	0	0	0	0	0	0	1	1	0	0
Taunton	273	24	0	1	5	1	0	0	44	2	8	0
Watchet	3	0	0	0	0	0	1	0	9	0	0	0
Wellington	206	1	0	0	0	0	0	0	14	0	1	0
Wells	162	2	0	0	1	0	0	0	0	0	1	0
Weston-super-Mare	954	119	1	0	4	0	0	3	62	22	3	0
Yeovil	124	15	0	0	3	1	0	2	98	17	5	0
<b>RURAL</b>												
Axbridge	459	45	0	1	0	2	0	0	27	22	2	0
Bathavon	119	20	0	0	0	0	1	0	82	15	5	0
Bridgwater	288	15	0	0	0	1	0	0	15	17	1	0
Chard	105	28	0	0	0	0	0	0	5	3	0	0
Clutton	34	10	0	0	1	0	1	0	41	9	1	1
Dulverton	24	1	0	0	0	0	0	0	4	9	1	0
Frome	91	16	0	1	0	0	1	0	13	9	5	0
Langport	286	9	0	0	0	1	0	4	14	5	1	0
Long Ashton	388	14	0	1	0	0	3	0	119	11	5	0
Shepton Mallet	34	6	1	1	1	0	1	0	33	3	5	0
Taunton	271	14	0	0	1	0	0	0	28	2	0	0
Wellington	153	13	0	0	0	0	1	0	44	1	6	0
Wells	137	2	0	0	4	0	0	0	3	3	2	0
Williton	116	1	0	0	0	0	1	0	14	1	2	0
Wincanton	119	2	0	1	0	1	0	0	19	10	9	0
Yeovil	53	9	0	0	1	0	0	2	60	5	4	0
Urban Districts	2700	277	1	2	29	3	1	7	393	84	35	0
Rural Districts	2677	205	1	5	8	5	9	6	521	125	49	1
Administrative County	5377	482	2	7	37	8	10	13	914	209	84	1

### **Prevalence and Control over Infectious and other Diseases.**

The number of Isolation Hospital beds available were, generally, the same as last year, and this accommodation was found to be adequate for requirements. The staffing of the hospitals continues to be difficult. The cases of notifiable diseases and their distribution are shewn in table VI. Comparison of these figures with those of 1948 show that there was again a considerable further increase in the number of cases of measles, poliomyelitis and scarlet fever. Diphtheria cases were 2 as compared with 6 last year, and puerperal pyrexia cases dropped from 64 last year to 37. Whooping cough cases have decreased considerably.

### **Orthopædic Scheme.**

The County Scheme, and the results of working during 1949, are described in considerable detail in my report for 1949, as School Medical Officer.

### **Blind Persons.**

The general work is carried out by the Somerset Blind Association on behalf of, and with a grant from, the County Council. 18 Home Teachers were employed by the County Blind Association during 1949. There were 19 Home Workers under the supervision of the Bristol Royal Blind Asylum Workshops. At the end of 1949 there were 945 persons in the County registered as blind, compared with 901 at the end of 1948. Certification by a medical practitioner with special experience in ophthalmology is required before registration. Where possible we make use of the County Oculists for certification purposes and during 1949 they examined 131 cases, 104 of whom were admitted to the register.

### VENEREAL DISEASES.

The attendances of Somerset cases at the various clinics for the past three years have been as follows:—

Clinic.	New Cases.				Attendances.			
	1947	1948	1949.	Increase or decrease during 1949	1947	1948	1949.	Increase or decrease during 1949
Bath ... ..	53 (27)	55 (31)	102 (36)	+ 47	896	545	432	-113
Bristol ... ..	160 (97)	153(116)	143(107)	- 10	1,350	1,160	894	-266
Taunton ... ..	97 (55)	63(113)	56 (36)	- 7	1,023	739	638	-101
Yeovil ... ..	81 (52)	117 (59)	90 (62)	- 27	595	621	627	+ 6
Bridgwater ...	93 (49)	74 (50)	115 (58)	+ 41	825	329	405	+ 76
Frome ... ..	21 (16)	18 (11)	14 (11)	- 4	121	140	72	- 68
Minehead ... ..	16 (7)	26 (6)	8 (6)	- 18	146	252	122	-130
Weston-super-Marc	132 (77)	102 (29)	59 (51)	- 43	1,090	1,067	450	-617
Glastonbury ...	—	—	15 (12)	+ 15	—	—	28	+ 28
<b>All Clinics</b>	<b>653(380)</b>	<b>608(415)</b>	<b>602(379)</b>	<b>- 6</b>	<b>6,046</b>	<b>4,853</b>	<b>3668</b>	<b>-1185</b>

The table distinguishes between the cases which are definitely venereal and those non-venereal who attended for investigation and diagnosis, the second group figures being in brackets. It will be seen that the figures show a decrease in cases and attendances.

### TUBERCULOSIS.

The County Council is now only responsible for the domiciliary side of the tuberculosis work, the management of the Sanatoria and the Chest Clinics having passed to the Regional Hospital Board under the National Health Service Act, 1946. I continue, however, to give as in previous reports details regarding the work of the Sanatoria and the Chest Clinics as this work is so closely connected with the tuberculosis notification statistics. The Public Health (Tuberculosis) Regulations, 1930, under which a return of all cases of tuberculosis notified to local Medical Officers of Health is made weekly to the County Medical Officer of Health, remain unaffected by the National Health Service Act.

To review in general terms the tuberculosis situation in 1949, Table VII shows a continued decrease in the tuberculosis death rate; Table VIII indicates 74 fewer pulmonary and 37 fewer non-pulmonary notifications than in 1948, and 7 fewer pulmonary and 9 fewer non-pulmonary deaths; and Table XI a considerable increase in the number of Chest Clinic attendances. As a matter of interest, I have in this report included a new Table XIV being a statistical summary covering the last 20 years, the pulmonary notification and pulmonary death details of which are also illustrated by a graph, see Table XIII.

TABLE VII

## TUBERCULOSIS.

Year.	Phthisis Death rates.			Other Tuberculosis Diseases			Tuberculosis Death-rate.	Deaths in a population of 406,000	
	Rural.	Urban	County.	Rural.	Urban.	County.	County.	Phthisis	All Tuberculosis
1945	0.32	0.40	0.36	0.06	0.07	0.06	0.426	141	173
1946	0.32	0.39	0.36	0.10	0.05	0.08	0.436	145	177
1947	0.29	0.41	0.34	0.11	0.09	0.10	0.443	140	180
1948	0.28	0.36	0.32	0.08	0.04	0.06	0.377	129	153
1949	0.23	0.37	0.29	0.04	0.04	0.04	0.335	121	136

TABLE VIII

New cases of tuberculosis and deaths from the disease in the County during 1949.

Age Periods.	New cases.				Deaths.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non Pulmonary.	
	M	F.	M.	F.	M.	F.	M.	F.
0—1	1	0	1	0	0	0	1	0
1—5	7	7	6	3	0	0	2	0
5—10	14	6	7	6	0	0	1	2
10—15	5	6	11	7				
15—20	19	26	8	3	41	31	3	3
20—25	33	42	1	4				
25—35	62	54	3	11				
35—45	40	26	5	5	41	10	3	2
45—55	59	17	1	2				
55—65	33	7	1	2				
65 and upwards	9	4	1	1	10	8	1	0
Totals	273	195	45	44	92	49	11	7

TABLE IX  
Tuberculosis Notifications and Deaths.

URBAN DISTRICTS.	Primary cases notified.		Deaths during the year from Pulmonary Tuberculosis.	Deaths during the year from other varieties of Tuberculosis.	RURAL DISTRICTS.	Primary cases notified.		Deaths during the year from Pulmonary Tuberculosis.	Deaths during the year from other varieties of Tuberculosis.
	Pulm.	Non-Pulm.				Pulm.	Non-Pulm.		
Bridgwater	36	6	8	0	Axbridge	27	9	5	3
Burnham	7	2	1	0	Bathavon	31	6	6	1
Chard	11	0	3	0	Bridgwater	16	4	6	0
Clevedon	9	5	1	2	Chard	9	3	0	0
Crewkerne	1	0	0	0	Clutton	25	3	6	1
Frome	11	0	5	0	Dulverton	3	0	3	0
Glastonbury	5	1	4	1	Frome	3	1	0	0
Ilminster	3	0	1	0	Langport	6	3	3	0
Keynsham	4	3	3	1	Long Ashton	33	5	2	0
Minehead	8	0	7	0	Shepton Mallet	9	1	3	0
Norton-Radstock	6	1	3	0	Taunton	25	2	5	1
Portishead	4	1	1	0	Wellington	9	2	1	0
Shepton Mallet	8	1	2	0	Wells	6	1	3	0
Street	5	0	3	0	Williton	9	1	6	1
Taunton	41	10	8	2	Wincanton	4	3	4	0
Watchet	3	0	0	0	Yeovil	22	2	5	3
Wellington	7	0	4	0					
Wells	6	1	1	0					
Weston-s-Mare	41	11	17	1					
Yeovil	15	1	11	1					
Totals	231	43	83	8	Totals	237	46	58	10

TABLE X  
Admissions to Sanatoria during 1949.

Sanatorium.	Men.	Women.	Children.	Total.
Quantock ... ..	51	55	2	108
Chard ... ..	16	56	2	74
Taunton ... ..	31	16	0	47
Wincanton ... ..	24	0	0	24
Musgrove Park ... ..	56	0	5	61
Compton Bishop ... ..	0	0	32	32
Bath Orthopædic Hospital ... ..	0	4	2	6
Other non-county beds ... ..	50	51	4	105
	228	182	47	457

TABLE XI

**Chest Clinic Attendances.**

					Total Chest Clinic Attendances 1949
Bath (County)	...	...	...	...	560
Bridgwater	...	...	...	...	2,792
Bristol	...	...	...	...	664
Chard	...	...	...	...	1,470
Clevedon	...	...	...	...	843
Glastonbury	...	...	...	...	336
Minehead	...	...	...	...	921
Radstock	...	...	...	...	927
Shepton Mallet	...	...	...	...	139
Taunton	...	...	...	...	6,422
Weston-super-Mare	...	...	...	...	3,123
Wincanton	...	...	...	...	99
Yeovil	...	...	...	...	843
Total					19,139

**Clinical Report for 1949.**

Dr. Kitcat, Senior Chest Physician, has written the following report:—

The year 1949 showed a slight decrease in the number of new cases seen (3,045 against 3,180 for 1948), and also in the number of cases of Tuberculosis discovered (489 as against 579). On the other hand the number of advanced cases seen for the first time at Clinics seems to be on the increase, particularly in the age group 45—65. As a result of this there is an increased demand for long-stay beds, which, in fact, may be required for the rest of the patients life.

With the continuing drift of nursing staff from Chest Hospitals and sanatoria this is producing a problem of increasing magnitude and one which is a constant source of anxiety.

Mass Radiography examinations continue and produce some really early cases for treatment but it is the experience all over the Country that the enthusiasm of the public for mass Radiography is decreasing and it is getting harder to persuade people to come and be x-rayed.

Sanatorium or hospital treatment was given in 457 cases. In addition, many open-air shelters were provided, those in actual use on December 31st, 1949, being 50. 732 Milk Grants were made.

Treatment by the use of artificial pneumothorax has been continued and the cases dealt with are shown in the following table:—

	At Dispensary or home of patient.	At Institutions.	Total
Primary inductions ... ..	0	74	74
Refills ... ..	4,103	3,671	7,774

The new cases seen numbered 3,045, and were classified as follows:—

<b>PULMONARY TUBERCULOSIS.</b>	T.B. Negative ... ..	247	
	T.B. Positive Stage 1 ... ..	17	
	T.B. Positive Stage 2 ... ..	115	
	T.B. Positive Stage 3 ... ..	56	
		—	435
<b>NON-PULMONARY TUBERCULOSIS.</b>	Bones and Joints ... ..	10	
	Abdominal ... ..	12	
	Other Organs ... ..	9	
	Peripheral Glands ... ..	23	
		—	54
Not Tuberculous ... ..			2,495
Diagnosis not complete on 31st December, 1949 ... ..			61
			—
			<u>3,045</u>

**Quantock Sanatorium.** The Medical Superintendent has furnished the following report:—

The Sanatorium has been open for the reception of 111 cases (66 males and 45 females) throughout the year. During this time 108 cases have been admitted, of whom 52 were males and 56 females. 125 patients were discharged, 67 males and 58 females. There were 2 female deaths. The average stay for male patients was 274 days and for female patients 262 days. This is an average of 38 weeks for each patient.

Artificial pneumothorax treatment was carried out in all suitable cases. There were 45 inductions, 2,343 refills for patients and 297 for out-patients.

X-ray: 585 films were taken and 908 cases were screened.

15 cases were operated on for Phrenic crush at Minehead Hospital

9 aspirations (chest and abdomen) were carried out.

13 patients were treated with streptomycin, and 19 with P.A.S.

## RESULTS OF TREATMENT

## WEIGHTS.

Increase in weights in Kilos. (1 Kilo.=2.2 lbs.)

		<i>Less than 6.</i>	<i>6—12.</i>	<i>12 and over.</i>	<i>Total.</i>
Males	...	33	11	5	49
Females	...	19	14	2	35

The average gain in weight of { 84 patients weighed on discharge = 5.82 Kilos.  
 49 male patients weighed on discharge = 5.75 „  
 35 female patients weighed on discharge = 5.91 „

The average loss in weight of 27 patients weighed on discharge = 2.99 „

14 patients were not weighed on discharge, including 2 who died.

Working capacity of patients on admission and discharge.

		<i>Full Working Capacity.</i>		<i>Fit for light work.</i>		<i>Unfit for work.</i>	
		Admission.	Discharge.	Admission.	Discharge.	Admission.	Discharge.
Males	...	0	15	0	16	60	29
Females	...	0	15	0	11	55	29

On admission all patients were unfit for any work. On discharge 26.09 per cent. of all patients were fit for full work; 23.48 per cent. for light work; and 50.43 per cent. were unfit for work.

Classification on admission of patients discharged during 1949.

					Tubercle Bacilli.			
					Positive.		Negative.	
Classification.	M.	F.	Total.	%	M.	F.	M.	F.
Early ...	26	29	55	48.68	1	2	25	27
Intermediate ...	30	22	52	46.02	16	9	13	14
Advanced ...	2	4	6	5.30	1	2	2	1

Complications presented by patients were:—Boils, Hydro-pneumothorax, and Asthma.

**Chard Sanatorium.** During the year the cases admitted were 68 pulmonary and 6 non-pulmonary (58 female, 16 male).

From the female pulmonary wards there were 41 discharges and 2 deaths; from the female surgical wards 5 discharges. On the male side there were 9 pulmonary cases discharged, and 5 deaths.

X-ray. 234 films were taken and 500 screenings made. Collapse treatment was again used. 8 inductions and 640 refills were carried out during the year.

**Compton Bishop Children's Home.** During the year 21 boys and 11 girls were admitted and of these 18 boys and 9 girls were under 10 years of age. The average stay for "definite" (notified) cases was 29 weeks, and for observation cases 27 weeks. The discharges numbered 36, 19 boys and 17 girls, who will be kept under regular supervision at the County Clinics.

TABLE XII

## QUANTOCK SANATORIUM.

## Duration of Treatment and Condition on Discharge.

Condition on discharge	1-3 months.			3—6 months.			6-12 months.			More than 12 months.			Totals.			Grand Totals	
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.		
Class TB Minus.	Quiescent	1	1	0	4	3	0	16	13	2	2	1	0	23	18	2	43
	Not quiescent	0	2	0	2	2	0	8	7	0	1	3	0	11	14	0	25
	Died in Institution	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1
Class TB + Group 1.	Quiescent	0	0	0	0	0	0	1	1	1	1	0	0	2	1	1	4
	Not quiescent	0	0	0	0	0	0	1	3	0	0	1	0	1	4	0	5
	Died in Institution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class TB + Group 2.	Quiescent	0	0	0	0	0	0	2	2	0	1	2	0	3	4	0	7
	Not quiescent	4	2	0	1	2	0	10	4	0	7	3	0	22	11	0	33
	Died in Institution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class TB + Group 3.	Quiescent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Not quiescent	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	2
	Died in Institution	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1

In 28 out of 63 men discharged the disease was quiescent=44.44 per cent. In 23 out of 55 women discharged the disease was quiescent=41.82 per cent. 1 patient (1-3 months) was discharged as not tuberculous. This patient together with 3 patients who were at the Sanatorium for less than 28 days, has not been included in the above figures.

TABLE XIII.



TABLE XIV

## TUBERCULOSIS—20 YEARS STATISTICAL SUMMARY

Year.	Pulmon-ary Tuberculosis Death rate	Pulmonary T.B. number of		Non-Pulmonary T.B. number of		No. of Admis-sions to Sana-torium	Total Chest Clinic Attend-ances	New Cases seen	Number of Cases as at 31st December on	
		Notifi-cations	Deaths	Notifi-cations	Deaths				Chest Clinic Regis-ters	Somer set T.B. Regis-ter
1930	0.53	497	216	143	37	245	8,427	1,484		
1931	0.53	426	215	159	53	247	8,472	1,435		
1932	0.55	418	226	147	47	254	8,310	1,414		
1933	0.47	357	191	122	48	241	7,258	1,366		
1934	0.43	373	172	138	43	251	6,835	1,404		
1935	0.43	347	175	112	38	307	6,741	1,350		
1936	0.35	297	143	98	35	307	6,638	1,256	1,770	
1937	0.41	331	167	104	41	280	6,518	1,253	1,633	
1938	0.45	287	182	107	32	270	6,625	1,326	1,564	
1939	0.36	315	152	117	31	292	6,128	1,225	1,588	
1940	0.35	446	162	112	51	289	6,848	1,526	1,809	
1941	0.39	541	198	144	42	329	7,520	1,914	1,996	
1942	0.35	476	168	127	51	329	7,515	1,836	1,996	
1943	0.35	461	159	137	56	334	8,119	1,999	2,197	
1944	0.41	562	187	133	48	414	9,543	2,185	2,352	
1945	0.36	519	158	96	29	364	9,865	2,509	2,271	
1946	0.36	525	159	85	35	386	9,688	2,215	1,701	
1947	0.34	626	155	140	45	444	11,889	2,750	2,114	2,490
1948	0.32	542	148	126	27	473	15,257	3,180	2,192	2,568
1949	0.29	468	141	89	18	457	19,139	3,045	2,292	2,631

This Table is of interest in as much as it shows the following facts:—

- (1) In spite of the increase in the number of pulmonary notifications, there has been a decrease in the pulmonary tuberculosis death rate, and a decrease in the number of pulmonary tuberculosis deaths, see graph (Table XIII)—the result of modern methods of treatment.
- (2) The gradual decrease in the number of pulmonary tuberculosis notifications until the war and the unfortunate increase during the war years which has since continued. See graph (Table XIII).
- (3) The considerable recent increase in Chest Clinic attendances; and
- (4) The gradual increase in the number of cases on the Somerset Tuberculosis Register and Chest Clinic Registers during recent years.

## **NATIONAL HEALTH SERVICE ACT, 1946.**

Particulars of the work of the County Council, as Local Health Authority, under the above Act are given under the following Sections. It is now possible to review a full year's working and to see how the County Council functions are being developed, and from the statistics provided to judge a little of the success attained in the inauguration of new work outlined in the County Council's accepted proposals under the Act. Much of the work reviewed has, of course, been undertaken by the Council for many years, and now falls to be dealt with as obligatory under the National Health Service Act. There is therefore a continuity to be observed in this review as well as information on new developments.

Generally, there has been steady progress towards the implementation of the Accepted Proposals, although it will be some time before this process is complete.

Sections that are of particular interest as they deal with new work under the Act, are those relating to the Ambulance, and Home Help Services and considerable progress has been made in each instance towards the establishment of a sound and effective service.

### **Section 21. Health Centres.**

In this connection I cannot do better than repeat my note of last year.

Some preliminary work has been done, particularly on possible sites for Health Centres in the future. In addition, certain sections of the local medical profession in various areas have been consulted and their interest in the possibility of Health Centres has been tested. On the whole, the practitioners in these areas are not at all enthusiastic about Health Centres under the present conditions and probably their support of any such scheme, at least in the initial stages, would be poor.

It is interesting to note that the practitioners, while holding this view about Health Centres, are most anxious to secure that they should have easier access to the various ancillary services, such as X-rays and laboratory services. They advance the view that if they were enabled to use such ancillary services at their discretion, the conduct of their practices would not only be simplified but a good deal of additional interest would come into their work.

Finally, in Somerset it is clear that Health Centres of any adequate type would have to be built. In my view the conversion of private houses or other existing buildings would be far from satisfactory and might well lead to a very poor class of service for many years.

The matter will be kept under consideration and a further report made in due course.

### **Section 22—Care of Mothers and Young Children.**

**Ante Natal and Post Natal Care.** The Local Health Authority's scheme for ante and post natal care continues as in 1948. For those patients who do not wish to avail themselves of the National Health Service Executive Council facilities for maternity services, ante natal clinics are provided at Taunton, Weston-super-Mare and Yeovil, and in other areas two ante natal examinations and one post natal examination by the doctor of the patient's choice can be arranged, the Health Authority being responsible for payment. Statistics show that, as was to

be expected, many fewer ante natal examinations were made under the latter scheme, but although the trend to arrange for maternity services under the Executive Council provisions is on the increase, I consider it essential for the present to retain these facilities now provided by the County.

Year		Ante Natal Medical Examinations	
		No. of cases examined	No. of examinations made
1945	...	—	1,845
1946	...	1,636	2,135
1947	...	1,878	2,390
1948	...	2,306	2,776
1949	...	1,432	1,944

With regard to ante natal clinic attendances, again as was to be expected, these have dropped, and the numbers attending in Weston-super-Mare no longer justified two sessions per week. As from October 1st, 1949 one clinic per week was held.

**Attendances at Ante Natal Clinics, 1949:—**

				New Cases.		Total Attendances.
Taunton	...	...	...	356	...	1,568
Weston-super-Mare	...	...	...	163	...	945
Yeovil	...	...	...	122	...	696

Facilities for routine blood tests are available at the ante natal clinics at Taunton, Yeovil, and at the General Hospital, Weston-super-Mare, and Pathological Laboratory services under the Regional Hospital Board are available, of course, to all doctors who wish to make use of them.

The number of post natal examinations although relatively higher, continues to be disappointingly low; it is difficult to persuade patients of the need for this follow-up service but it is hoped by increased propaganda to emphasise its importance.

Year		Post Natal Medical Examinations	
		No. of cases examined	No. of examinations made
1945	...	—	210
1946	...	228	233
1947	...	229	294
1948	...	450	456
1949	...	483	507

A Breast Feeding clinic has been established at Bridgwater Health Centre. Mothers attend ante nately for advice on preparation for breast feeding, and post nately for such additional supervision and advice as cannot be given at a Child Welfare Centre.

### Maternal Mortality.

	1918	1928	1938	1943	1946	1947	1948	1949
Puerperal Sepsis ... ..	8	14	4	6	1	4	2	2
Other Accidents and Diseases of Pregnancy and Parturition ...	20	12	10	18	6	13	4	7
Total ...	28	26	14	24	7	17	6	9
Rate per 1,000 births ... ..	5.14	4.36	2.49	3.13	0.86	1.87	0.74	1.11

### Dental Care. Report of the Senior Dental Officer.

The provision of dental treatment for expectant and nursing mothers and pre-school children has been maintained during the year, but owing to the continued shortage of Dental Staff it has not been possible to extend the scheme as one would wish. The first steps of an organised scheme have been taken in two areas where the dental clinic is in the same building as the Maternity and Child Welfare Clinic (Yeovil and Taunton). It is hoped such facilities will ultimately exist in other parts of the County. Nevertheless, treatment is carried out in certain other centres, namely:—

Bridgwater  
Wincanton  
Keynsham

Radstock  
Glastonbury  
Portishead

During the year simplified forms for notifying those cases needing inspection and treatment have been introduced which create less delay between notification and treatment, and give a more complete record of each individual case.

It will be seen from the figures given below that the amount of treatment given to these cases is a little less than that for last year, with the exception of the provision of dentures which has increased. It is felt that much more dental treatment would be sought through the Scheme if it were more widely known, but until the staff and the premises are available it is not wise to give too much publicity to the very great advantages gained as a result of dental inspection and treatment being given early in pregnancy, or, for the pre-school child, in its first year or two.

#### (a) Numbers provided with dental care.

	Examined	Needing treatment	Treated	Made Dentally Fit
Expectant and Nursing Mothers	462	437	376	312
Children under five ... ..	456	441	505	460

The apparant inconsistencies in the above figures are due to the fact that the figures in the first two columns represent patients inspected during 1949 while those in the third and fourth columns include some patients who were inspected in 1948, but were not treated until 1949. The column headed "Treated" indicates patients whose treatment was commenced during the year and the column headed "Made Dentally Fit" those whose treatment was completed. The differences between the "Treated" and "Made Dentally Fit" figures occur because some of the patients refused further treatment, left the district before treatment could be completed, or are still receiving treatment during the current year.

**(b) Forms of dental treatment provided.**

	Extrac- tions	Anaesthetics		Fillings	Sealings or Scalings and gum treat- ment	Silver Nitrate treat- ment	Dress- ings	Radio- graphs
		Local	General					
Expectant and Nursing Mothers	895	173	195	317	109	—	—	31
Children under five ...	415	82	94	321	99	115	—	7

Dentures provided :

Complete	...	...	136
Partial	...	...	86

Total	222
-------	-----

The number of sessions devoted to this Service by the County Dental Officers was.—

Inspections 23; Treatment 335; Total 358

Facilities for x-ray examination have been provided at our three established main dental centres at Taunton, Bridgwater and Yeovil, and it is intended to arrange similar facilities at Weston-super-Mare, Frome and Wells when these main centres are completed.

Our Dental Laboratory at Musgrove Park Hospital is now well established and provides all the dentures, crowns, etc., required for maternity patients treated under the County Scheme,

**Premature Infants.**

In addition to the 200 premature births in Maternity Units there were 195 premature domiciliary births in the county, 52 of which were admitted subsequently to a premature baby unit in hospital. All premature infants nursed at home receive close supervision by a specially trained Assistant Nursing Superintendent. She visits the home to ensure that adequate equipment and help are available, and where necessary, arranges for the loan of additional equipment. She continues to visit periodically in a supervisory capacity till satisfied that the infant is making satisfactory progress. All County Midwives have been instructed to try to secure admission to hospital for delivery of all patients in labour whose duration of pregnancy appears to be less

than 38 weeks, and where a premature confinement is to take place in the patient's home the midwife has been asked to summon medical aid. 38 special visits have been made in respect of premature infants, and equipment lent in 2 cases.

#### **Premature Births.**

Total number of premature births ...	...	...	...	...	...	395
--------------------------------------	-----	-----	-----	-----	-----	-----

#### **Neonatal Deaths of premature infants.**

In hospital or nursing home ...	...	...	...	...	...	52
In own homes ...	...	...	...	...	...	18
Total number of neonatal deaths from all causes	...	...	...	...	...	138
Total number of deaths of infants under 1 year	...	...	...	...	...	230

**Day Nurseries.** At the end of the year a survey was made of the Day Nurseries in the county, reviewing the circumstances of children in attendance and on the waiting lists for admission. As a result, the County Council decided that places in Nurseries could be granted on account of the child need only, and defined certain priority categories. A Nursery Committee was appointed in respect of each day nursery for the purpose of considering applications and allocating places.

These Committees will function as from January, 1950.

The Day Nursery places provided are:—

Bridgwater	...	...	...	...	30
Keynsham	...	...	...	...	20
Frome	...	...	...	...	30
Taunton	...	...	...	...	45
Weston-super-Mare	...	...	...	...	33

The Day Nursery at Street was closed in August, 1949 when the premises were restored to the Education Committee for use as a Nursery School.

**Keynsham.** Although the number of places occupied has been increased to 20 it is not possible to use the premises to the planned capacity as part of the house is used as a temporary dental clinic and the necessary adaptations of the premises as a whole have not been carried out.

**Taunton.** In view of their decision to restrict admission to day nurseries to cases of child need the County Council decided not to proceed with additional day nursery accommodation at Taunton.

**Residential Nurseries.** By arrangement with the Children's Committee children in need of short stay Residential Nursery care on account of parental illness or other reason are admitted to Bawdrip Nursery, as was the case prior to July, 1948 when this unit was administered by the Health Committee.

**Convalescence.** Children under 5 years of age in need of convalescent care are admitted to an approved convalescent nursery unit at Westward Ho, payment being made on a weekly case basis, and recovery of cost being made from the parent after assessment of income in accordance with the County scale.

**Special Supervision of Children.** Infant visitors refer to the Health Department names of children who require special supervision and care, or treatment.

During 1949 these could be grouped under the following categories:—

1. Orthopædic ... ..	279	4. Neglect ... ..	10
2. Eye { blindness ... ..	2	5. Mental retardation ... ..	12
{ other ... ..	44	6. Debility: prematurity:	
3. Ear, nose and throat ...	16	feeding difficulties ... ..	79
		7. Various ... ..	63
			<hr/>
			505
			<hr/>

**Ophthalmia Neonatorum.** During 1949, 8 cases were notified and, of these, 5 cases were sent to hospital. The distribution of the cases in districts is shown in Table VI.

**Birth Control.** During the year 1949, the number of applications received for advice and assistance was 60. Two of these were referred to clinics and the remainder to private doctors.

**Unmarried Mothers.** An area Assistant Nursing Superintendent investigates each application for assistance for an unmarried mother. She ascertains not only the need for hospital accommodation but also the need for further assistance whether it be ante natal residential accommodation or post natal care with her infant pending a decision as to her future.

Frequent requests are made for "adoption at birth" but mothers are informed that this is not possible and that they must care for the child at least for a time. In the comparatively few instances when adoption appears to be the only solution the mother is put in touch with the Children's Committee with a view to being assisted if possible.

In certain instances Moral Welfare Workers are asked to assist in the care of unmarried mothers, payment for such help being made, on a case basis, to the appropriate association. Exmoor House, Dulverton, used for the emergency housing of mothers with or without their illegitimate children, was closed in December, 1949. Alternative accommodation at Braeside, Chard, will be available in 1950 and should prove a more suitable and more accessible unit.

**Maternity Accommodation.** It continues to be the responsibility of the Health Department to investigate the relative needs of applicants for admission to hospital for social reasons, and to arrange hospital accommodation where necessary.

Of 2,719 applications received, hospital facilities were arranged for 2,165 patients, and home helps for 197 of the remainder. In some instances hospital beds offered at some distance from the patient's home were not accepted.

**Child Welfare Centres.** Some extension of this work has been made during the year. 8 new centres having been opened, at Cheddar, Puriton, Redcliffe Bay, Shepton Mallet, South Petherton, Stoke-under-Ham, West Coker and Castle Cary. In each instance in accordance

with the policy of the County Council the District Nursing Association formed a Sub-Committee for the purpose of administering the centre. All centres are visited periodically by members of the medical and senior nursing staff. Additional equipment and variation of methods are advised where necessary, and transport facilities have been arranged to enable the more rural areas to be served. Extension of educational work has been assisted greatly by the co-operation of the Education Committee in making available members of the Homecraft Teaching Staff for giving talks and demonstrations. These have been appreciated very much.

In December, 1949, the number of centres provided in the County was 83. There is need for further centres in other areas and it is hoped to extend the number in 1950.

I wish to pay tribute to the work of all the voluntary committees undertaking the administration of Child Welfare Centres and to the helpers who give unstinted service. Without their help it would be difficult, if not impossible to carry on the centres in the rural areas.

Statistics for all centres for 1949 are:—

Sessions held.	New cases.		Total cases in attendance at end of year		Attendances.	
	Under 1	1-5 years.	Under 1	1-5 years.	Under 1	1-5 years.
2,162	4,074	1,442	3,221	6,918	44,001	31,154

### Sections 23 and 25—Midwifery and Home Nursing Services.

#### Details of District Staff Employed, December, 1949

##### On permanent districts—

Queen's Nurse Midwives with Health Visitors' certificate	...	27
Queen's Nurse Midwives	...	81
State Registered Nurses and State Certified Midwives	...	17
State Registered Nurses	...	1
Village Nurse Midwives	...	37
Assistant Nurses and State Certified Midwives	...	1
State Registered Nurses with Queen's Training	...	2
		<hr/> 166 <hr/>

##### Emergency Staff—

Queen's Nurse Midwives	...	9
State Registered Nurses and State Certified Midwives	...	14
Village Nurse Midwives	...	14
State Registered Nurses	...	5
Assistant Nurses and State Certified Midwives	...	1
Assistant Nurses	...	2
		<hr/> 45 <hr/>

### Summary of District Nurse Midwives' Work.

#### Number of cases attended:—

Medical	...	...	...	13,244
Surgical	...	...	...	6,683
Midwifery	...	...	...	1,978
Maternity	...	...	...	1,712
Miscarriage	...	...	...	373
Gas and Air	...	...	...	1,243

#### Number of visits made:—

General Nursing	...	...	292,821
Midwifery	...	...	37,739
Maternity	...	...	32,015
Ante natal	...	...	35,665
Casual	...	...	53,990
Schoolchildren	...	...	3,107
Infants	...	...	136,545

The number of occasions on which medical aid was summoned in accordance with the rules of the Central Midwives' Board was 1,200.

During the year the nurses attended 734 school inspections, 2,960 infant welfare clinics, 231 operations and 1,473 deaths.

### Special Training Courses.

				Completed	Still in Training
Queen's District Training	...	.....	...	8	7
Midwifery Training	...	...	.....	19	10
Health Visitors Training	...	...	.....	6	10
Gas and Air Analgesia	...	...	.....	38	—

The training of nurse midwives in the use of analgesics has continued at the Mary Stanley Home, Bridgwater, at Bristol Maternity Hospital and at St. Martin's Hospital, Bath. 152 nurses hold the Certificate.

The supervision of the Midwifery and Nursing Services continues to be undertaken by the senior medical staff, the Nursing Officer, her deputy, and 5 area assistants, who undertake also such special enquiries as are required in respect of stillbirths, neonatal deaths, ophthalmia puerperal pyrexia, etc.

The number of permanent nursing staff falls far short of what is required. This is due in no small measure to the acute shortage of suitable living accommodation. In many areas the nurse midwife is offered accommodation which is far below a reasonable standard of comfort, and as a result, suitably qualified staff refuse to accept the post, which has to be filled by a succession of relief nurses. This is highly unsatisfactory and until reasonable housing can be offered we cannot hope to provide an adequate nursing service throughout the county. Some housing authorities have been most helpful: others justifiably feel unable to allocate to a nurse, one of their small number of council houses for which there is a long waiting list. The help of the Ministry of Health has been sought with a view to securing authority to build, but so far without success.

The state of housing accommodation at the end of the year may be summarised as follows:

Owned by District or County Nursing Association	...	...	...	14
Leased by District Nursing Association or County Council				
(a) from private owners	...	...	...	25
(b) from local authorities	...	...	...	18
				—
				57
				—

Much good work has been done by County and District Nursing Associations in improving houses owned by them and rented to the County Council, and also in providing furniture for new houses rented by the County Council. In addition their work has been of the utmost value in maintaining local interest in the nursing services and in undertaking responsibility for transport as well as other duties. As mentioned elsewhere they have been most helpful in appointing from their members, sub-committees for the purpose of administering new Child Welfare Centres.

#### Section 24.—Health Visiting.

In December, 1949 the total staff consisted of 1 Superintendent and 32 Health Visitors, Health Visitors employed in the Boroughs of Taunton, Bridgwater, Weston-super-Mare and Yeovil, are undertaking school work in addition to the Maternity and Child Welfare duties.

In the rural areas the policy of transferring the school work from the district nurse to the Health Visitor has progressed steadily and has necessitated much re-organisation.

A whole time Tuberculosis Visitor was appointed to the Taunton area for Clinic and Home Visiting duties.

In order to further the proposal of a single nursing service in the county with all members having the same basic Public Health training, the County Council decided to increase the number of Health Visitors' scholarships to 19.

In May, 1949 a two-day post-graduate course for Midwives, Nurses and Health Visitors was held at the Shire Hall, Taunton, when a comprehensive and varied course of lectures was arranged. These were very well attended, and in addition to their teaching value, served a useful purpose in bringing together members of different branches of the Local Authority Health Services. In October, 1949 a series of 6 area meetings was arranged when doctors, Midwives, Nurses, Health Visitors, Home Help Organisers and Assistants, met to discuss problems in connection with their work. I consider both types of meetings valuable in helping to weld into one team members of all sections of our health services.

#### Section 26.—Vaccination and Immunisation.

(a) **Vaccination.** The year 1949 shewed a further fall in the number of vaccinations carried out, only 843 babies out of a total of 7,920 live births being vaccinated. This percentage 10.6 compares with 16% in 1948 and a national average of 40% in 1947.

There is no doubt that the removal of the compulsion clause has so far resulted in a serious decline in vaccination. The risk of imported small-pox is ever present and therefore this position must be regarded with anxiety.

## VACCINATION

Return for the Year ended 31st December, 1949.

## RURAL DISTRICTS

District.	Under 1 1949		1 to 4 1945-1948		5 to 14 1935-1944		15 or over before 1935		Totals	
	Primary	Re- Vacen.	Primary	Re- Vacen.	Primary	Re- Vacen.	Primary	Re- Vacen.	Primary	Re- Vacen.
Axbridge ... ..	58	—	54	—	6	3	13	19	131	22
Bathavon ... ..	30	—	31	—	3	4	5	10	69	14
Bridgwater ... ..	17	—	24	—	11	1	4	6	56	7
Chard ... ..	14	—	22	—	1	1	1	7	38	8
Clutton ... ..	18	—	19	2	—	—	1	6	38	8
Dulverton ... ..	42	—	17	—	—	2	3	7	62	9
Frome ... ..	21	—	19	1	6	3	8	4	54	8
Langport ... ..	31	—	26	—	3	7	2	8	62	15
Long Ashton ... ..	29	—	40	—	11	2	6	19	86	21
Shepton Mallet ... ..	12	—	10	—	1	—	2	6	25	6
Taunton ... ..	38	—	27	1	4	8	7	17	76	26
Wellington ... ..	23	—	22	—	2	3	—	8	47	11
Wells ... ..	7	—	12	—	5	—	2	4	26	4
Williton ... ..	33	—	16	—	1	2	1	7	51	9
Wincanton ... ..	42	—	46	3	2	2	4	8	94	13
Yeovil ... ..	52	—	42	—	—	2	—	8	94	10
Totals ...	467	—	427	7	56	40	59	144	1,009	191

## URBAN DISTRICTS

District.	Under 1 1949		1 to 4 1945-1948		5 to 14 1935-1944		15 or over before 1935		Totals	
	Primary	Re- Vacen.	Primary	Re- Vacen.	Primary	Re- Vacen.	Primary	Re- Vacen.	Primary	Re- Vacen.
Bridgwater ... ..	14	—	8	—	6	2	4	9	32	11
Burnham ... ..	14	—	19	2	4	2	2	19	39	23
Chard ... ..	5	—	14	—	1	—	1	3	21	3
Clevedon ... ..	42	—	15	—	2	2	2	2	61	4
Crewkerne ... ..	10	—	14	—	—	—	—	5	24	5
Frome ... ..	22	—	12	2	2	—	—	9	36	11
Glastonbury ... ..	5	—	4	—	1	3	1	4	11	7
Ilminster ... ..	1	—	1	—	—	—	—	—	2	—
Keynsham ... ..	—	—	1	—	—	—	—	—	1	—
Minhead ... ..	27	—	12	—	—	1	3	24	42	25
Norton Radstock ... ..	1	—	8	—	—	—	1	3	10	3
Portishead ... ..	7	—	12	1	11	—	32	13	62	14
Shepton Mallet ... ..	1	—	4	—	—	—	—	—	5	—
Street ... ..	2	—	—	—	1	—	3	1	6	1
Taunton ... ..	44	—	32	—	—	3	3	35	79	38
Watchet ... ..	1	—	2	—	—	—	—	—	3	—
Wellington ... ..	16	—	12	—	1	1	3	4	32	5
Wells ... ..	6	—	9	—	—	2	2	6	17	8
Weston-super-Mare ... ..	95	1	55	5	5	9	9	47	164	62
Yeovil ... ..	63	—	52	2	4	—	3	15	122	17
Totals ...	376	1	286	12	38	25	69	199	769	237

(b) **Diphtheria Immunisation.** The returns for 1949 continue to be reasonably satisfactory. Comparing primary immunisations of under 5's with the total births of the previous year shews that 66% were immunised. The corresponding percentage for 1948 was very high, being 82% and evidently included a considerable number of children aged 1—5 years.

75% of the total births may be regarded as a satisfactory immunisation ratio.

The respective figures of immunisations by general practitioners and County Staff are as follows:—

	General Practitioners.		County Staff.	
	1949	(1948)	1949	(1948)
Primary Immunisations in 1949 ...	1,868	(3,286)	3,926	(4,963)
Reinforcements in 1949 ... ..	58	(41)	5,765	(5,695)

The benefit of the immunisation service is clearly illustrated by the fact that there were only two cases of diphtheria during the year, neither of which had been immunised, while in 1941, before the service had been organised on a large scale, the number of cases notified was 437.

## DIPHTHERIA IMMUNISATION.

Local Sanitary District.	Total primary immunisations in 1949 (0-15 years)	Total reinforcements in 1949	Total Live Births 1948
<b>RURAL.</b>			
Axbridge ... ..	402	339	446
Bathavon ... ..	214	499	375
Bridgwater ... ..	195	215	355
Chard ... ..	143	243	215
Clutton ... ..	236	38	320
Dulverton ... ..	73	45	83
Frome ... ..	116	34	180
Langport ... ..	147	211	221
Long Ashton ... ..	245	188	419
Shepton Mallet ... ..	106	133	201
Taunton ... ..	187	201	298
Wellington ... ..	83	58	122
Wells ... ..	116	198	169
Williton ... ..	156	170	183
Wincanton ... ..	218	179	275
Yeovil ... ..	369	557	324
Totals ...	3,006	3,308	4,186
<b>URBAN.</b>			
Bridgwater ... ..	226	128	451
Burnham-on-Sea ... ..	92	38	164
Chard ... ..	72	18	95
Clevedon ... ..	82	44	128
Crewkerne ... ..	57	26	67
Frome ... ..	176	27	179
Glastonbury ... ..	85	35	74
Ilminster ... ..	20	101	54
Keynsham ... ..	22	124	106
Minehead ... ..	99	46	86
Norton Radstock ... ..	138	209	199
Portishead ... ..	41	31	78
Shepton Mallet ... ..	89	53	99
Street ... ..	125	108	115
Taunton ... ..	403	450	565
Watchet ... ..	33	29	52
Wellington ... ..	73	64	93
Wells ... ..	71	124	81
Weston-super-Mare ... ..	396	416	622
Yeovil ... ..	488	444	384
Totals ...	2,788	2,515	3,692
County Totals ...	5,794	5,823	7,878

**Section 27.—Ambulance Service.** The Ambulance Service has continued to run satisfactorily during the year. The Tables show the work of the individual stations and of the ten areas of the Hospital Car Service, and also the work carried out under Agency Agreement with Bath and Bristol Corporations.

The number of full-time personnel employed on 31st December, 1949 was 36 and details are shown in Table XV. It was found necessary to authorise the appointment of three relief driver attendants to cover holiday and sickness duty, two being allocated to the St. John Ambulance Brigade and one to the British Red Cross Society. When not on relief duty they are attached to one of the main stations.

The voluntary effort is being well maintained by both organisations and is a very valuable contribution without which it would be necessary to increase considerably the number of paid personnel.

The arrangement with the Langport & District Ambulance Committee who staff and man an ambulance belonging to the County Council continues to meet satisfactorily the needs of that area.

The practice of sending long distance cases by rail instead of by road has continued with marked success, and medical practitioners, generally, are now most co-operative. Indeed, it is becoming the exception rather than the rule to send cases by road for journeys over 75 miles one way. During 1949, 255 cases were sent by rail compared with 10 for the six months ended 31st December, 1948. This has undoubtedly saved the provision of extra paid personnel and by reducing wear and tear of existing vehicles has lessened the need for new vehicles. Use was also made during the summer of the Cardiff boats when sending cases from Weston-super-Mare to South Wales. Letters of appreciation from patients sent by rail have been received and there is no doubt that it has become increasingly popular as it is quicker and more comfortable than a long road journey. From the local health authority's point of view it is much cheaper, the cost working out at less than one-fifth of the equivalent road journey.

It was found impossible to continue to run the Wincanton Ambulance on a semi-voluntary basis and after local consultations the station was closed on 31st March, 1949. In order to strengthen the service in this area the Committee agreed to the employment of a paid driver-attendant at Castle Cary B.R.C.S. Station and the arrangement has worked satisfactorily with the voluntary help provided by the local detachment and the part-time employment of a local garage driver, when required.

Sixteen new ambulances were taken into use during the year. Unfortunately, the Home Service Joint Ambulance Committee decided to discontinue grants to local health authorities towards the cost of new ambulances, and grants were only made in respect of four of these vehicles. The new vehicles were allotted to the following stations:—

S.J.A.B.—Bridgwater, Clevedon, Glastonbury (2), Highbridge, Minehead (2), Portishead, Radstock, Timsbury and Weston-super-Mare (2).

B.R.C.S.—Taunton, Yeovil (2) and Shepton Mallet.

Major repairs were satisfactorily carried out to County owned ambulances, used mainly for Isolation Hospital work, at the Council's Central Repair Depot, Underwood, Wells. It is hoped in future to make greater use of the excellent facilities available.

The Hospital Car Service continued to give valuable help in the transport of sitting-cases, but some modification in the present procedure must undoubtedly take place if the fullest and most economical use is to be made of it. The main disadvantages are the length of notice required—24 hours—and the lack of direct contact between individual drivers and the operational sections of the Ambulance Service.

The use of private hire cars has continued, particularly for emergency work and for carrying cases not included in the scheme of the Hospital Car Service. Hire service cars are very useful in rural areas where there are no Hospital Car drivers, and the cars are usually large enough to take from 4—7 passengers making the combination of journeys easier. The mileage covered by private hire during the year was 98,285 miles at a cost of £3,102, making the cost per mile run 7.5d. The cost of the Hospital Car Service works out at 6.8d.

During the year six cars for sitting-cases were delivered and placed at the following stations:—

S.J.A.B.—Bridgwater, Clevedon, Glastonbury and Weston-super-Mare.

B.R.C.S.—Farrington Gurney and Taunton.

These cars have been found most useful for emergency work and the Tables show the extent to which they were used in comparison with the Hospital Car and Private Hire Services. Some of the cars were only delivered in the last three months of the year.

Under Section 27 of the National Health Service Act, 1946, it is the duty of a local health authority to provide an Ambulance Service for the conveyance of sick persons in their area to places in or outside their area. Section 24 of the National Health Service (Amendment) Act, 1949, whilst leaving the responsibility for providing ambulance transport with the local health authority in whose area the need arises, now permits the authority to charge the cost to the receiving local health authority if the person is conveyed from a hospital to an address in the area of another local health authority provided that the person concerned has been resident in that hospital for a period not exceeding three calendar months. This has the effect of transferring a portion of the financial liability of County Boroughs like Bath and Bristol to adjacent County Local Health Authorities, and is likely to add considerably to the latter's annual cost. The Amendment Act came into force on 16th December, 1949.

In May, 1949, the Ambulance Sub-Committee approved the principle of grouping the smaller Ambulance Stations under a main Station in charge of a Group Officer, to whom all requests for transport in the area would be sent with the exception only of emergency accident calls which would be dealt with immediately by the nearest Ambulance Station without reference to the Group Officer. The Weston-super-Mare Group will begin to function in March, 1950, and it is anticipated that the whole County will be covered by 1st December, 1950.

Thanks are due to Mrs. Bingham-Hall, County Organiser, Hospital Car Service, the County Commissioner, S.J.A.B., County Director, B.R.C.S. and to the numerous voluntary workers in these Services; also to Mr. W. G. F. Garland, Chairman, Langport & District Ambulance Committee. Their valuable help and co-operation have contributed to the success of the scheme. Thanks are also due to the Secretaries of the various Hospital Management Committees, Matrons and Almoners of Hospitals, who have greatly assisted the County Ambulance Liaison Officer by altering times of appointments to enable journeys to be combined and in endeavouring to ensure that the Service is not unduly abused. Valued help and co-operation has also been received from the Officer appointed by the Bristol Royal Hospitals to co-ordinate transport requests, and from the Bristol and Bath City Ambulance Services.

TABLE XV.

**AMBULANCE STATION PERSONNEL AND VEHICLE ESTABLISHMENTS**  
As at 31st December, 1949.

Station	Full-time paid personnel authorised			Vehicles		
	Superin- tendent	Driver/ Attendant	Clerk/ Telephon- ist	Ambul- ances	Utilecons	Cars
<b>St. John Ambulance Brigade:</b>						
Bridgwater ... ..	—	2	—	3	—	1
Chard ... ..	—	—	—	2	—	—
Cheddar ... ..	—	—	—	2	—	—
Clevedon ... ..	—	1	1	2	—	1
Frome ... ..	—	—	—	1	—	—
Glastonbury/Street ... ..	—	2	—	2	1	1
Highbridge/Burnham ... ..	—	—	—	2	—	—
Minchhead ... ..	—	2	—	3	—	—
Portishead ... ..	—	—	—	2	—	—
Timsbury ... ..	—	—	—	1	—	—
Watchet ... ..	—	—	—	1	—	—
Wedmore ... ..	—	—	—	1	—	—
Wellington ... ..	—	1	—	1	—	—
Wells ... ..	—	1	—	2	—	—
Weston-super-Mare ... ..	1	7	2	6	1	3
Norton Radstock Joint ... ..	—	2	—	4	—	—
Relief Duty ... ..	—	2	—	3	—	—
<b>British Red Cross Society:</b>						
Castle Cary ... ..	—	1	—	1	—	—
Churchill ... ..	—	1	—	1	—	—
Crewkerne ... ..	—	—	—	1	—	—
Farrington Gurney ... ..	—	—	—	—	1	1
Ilminster ... ..	—	—	—	1	—	—
Shepton Mallet ... ..	—	1	—	2	—	—
Taunton ... ..	—	4	—	4	—	1
Wiveliscombe ... ..	—	—	—	1	—	—
Yeovil ... ..	—	4	—	4	1	—
Relief Duty ... ..	—	1	—	1	—	—
<b>Isolation Hospitals:</b>						
South Petherton ... ..	—	—	—	1	—	—
Taunton ... ..	—	—	—	1	—	—
<b>Langport Ambulance Committee</b> ... ..	—	—	—	1	—	—
<b>Total</b> ... ..	<b>1</b>	<b>32</b>	<b>3</b>	<b>57</b>	<b>4</b>	<b>8</b>

TABLE XVI.

## AMBULANCE STATIONS.

Ambulance Stations.	Period 1.1.49—30.6.49			Period 1.7.49—31.12.49			Total		
	Cases	Jour- neys	Mile- age	Cases	Jour- neys	Mile- age	Cases	Jour- neys	Mile- age
<b>Ambulances</b>									
<b>St. John Ambulance Brigade.</b>									
Bridgwater ... ..	742	741	11,469	704	692	10,591	1,446	1,433	22,060
Chard ... ..	156	149	5,014	143	128	4,558	299	277	9,572
Cheddar ... ..	73	70	2,808	82	74	2,785	155	144	5,593
Clevedon ... ..	255	247	6,436	445	295	7,875	700	542	14,311
Frome ... ..	190	187	4,108	218	208	4,960	408	395	9,068
Glastonbury/Street ... ..	234	181	6,826	278	213	8,945	512	394	15,771
Highbridge/Burnham ... ..	268	257	6,631	285	264	7,197	553	521	13,828
Minehead ... ..	468	466	11,285	591	559	11,027	1,059	1,025	22,312
Norton Radstock ... ..	312	304	6,764	415	397	9,872	727	701	16,636
Portishead ... ..	158	151	3,627	166	158	3,834	324	309	7,461
Timsbury ... ..	67	65	1,346	72	70	1,619	139	135	2,965
Watchet ... ..	55	50	1,999	63	59	2,076	118	109	4,075
Wedmore ... ..	28	28	1,204	26	26	1,066	54	54	2,270
Wellington ... ..	185	180	3,242	197	194	3,873	382	374	7,115
Wells ... ..	246	240	7,069	206	190	5,241	452	430	12,310
Weston-super-Mare ... ..	2,660	1,767	17,966	3,625	1,693	34,201	6,285	3,460	52,167
<b>British Red Cross.</b>									
Castle Cary ... ..	45	44	1,672	126	120	4,945	171	164	6,617
Churchill ... ..	70	69	2,057	80	78	2,431	150	147	4,488
Crewkerne ... ..	78	77	2,062	62	62	1,472	140	139	3,534
Farrington Gurney ... ..	55	52	1,129	24	24	571	79	76	1,700
Ilminster ... ..	47	46	1,591	46	46	1,483	93	92	3,074
Norton Radstock ... ..	11	11	226	10	10	454	21	21	680
Shepton Mallet ... ..	216	209	6,185	190	186	5,139	406	395	11,324
Taunton ... ..	973	952	17,134	1,040	964	16,631	2,013	1,916	33,765
Wiveliscombe ... ..	3	3	94	14	14	291	17	17	385
Yeovil ... ..	851	837	15,849	920	877	17,937	1,771	1,714	33,786
<b>Isolation Hospitals.</b>									
Axbridge ... ..	47	44	1,064	10	10	223	57	54	1,287
Shepton Mallet ... ..	31	31	1,274	6	6	278	37	37	1,552
South Petherton ... ..	78	77	1,363	97	92	2,156	175	169	3,519
Taunton ... ..	137	137	2,433	120	120	2,354	257	257	4,787
<b>Langport Ambulance Committee</b>									
Wincanton ... ..	92	92	3,248	94	94	3,518	186	186	6,766
Wincanton ... ..	33	29	719	—	—	—	33	29	719
Bath City ... ..	439	433	5,369	510	514	7,268	949	947	12,637
Bristol City ... ..	339	317	7,135	369	364	5,392	708	681	12,527
Totals ...	9,642	8,543	168,398	11,234	8,801	192,263	20,876	17,344	360,661

Ambulance Stations	Period 1.1.49—30.6.49			Period 1.7.49—31.12.49			Total		
	Cases	Jour- neys	Mile- age	Cases	Jour- neys	Mile- age	Cases	Jour- neys	Mile- age
<b>Cars</b>									
<b>St. John Ambulance Brigade</b>									
Bridgwater ... ..	544	542	5,705	902	890	8,447	1,446	1,432	14,152
Clevedon ... ..	—	—	—	156	108	3,188	156	108	3,188
Glastonbury ... ..	—	—	—	464	263	13,985	464	263	13,985
Weston-super-Mare ... ..	3,472	2,144	29,993	4,413	2,264	42,054	7,885	4,408	72,047
<b>British Red Cross Society</b>									
Farnington Gurney ... ..	—	—	—	112	106	2,815	112	106	2,815
Taunton ... ..	—	—	—	373	314	9,482	373	314	9,482
Yeovil ... ..	—	—	—	52	40	2,016	52	40	2,016
Bristol City Ambulance Service ...	518	496	11,945	593	550	12,292	1,111	1,046	24,237
Totals ...	4,534	3,182	47,643	7,065	4,535	94,279	11,599	7,717	141,922

## HOSPITAL CAR SERVICE

Area No.	Period 1.1.49—30.6.49			Period 1.7.49—31.12.49			Total		
	Cases	Jour- neys	Mileage	Cases	Jour- neys	Mileage	Cases	Jour- neys	Mileage
1.	1,267	1,003	25,037	775	576	12,602	2,042	1,579	37,639
2.	779	678	22,852	790	653	20,141	1,569	1,331	42,993
3.	885	797	16,073	1,191	1,001	20,636	2,076	1,998	36,709
4.	992	924	25,115	1,324	1,057	27,465	2,316	1,981	52,580
5.	835	662	26,101	1,252	1,053	28,894	2,087	1,715	54,995
6.	437	388	17,078	661	576	22,605	1,098	964	39,683
7.	1,506	1,289	33,539	2,036	1,780	38,763	3,542	3,069	72,302
8.	377	285	17,659	641	546	25,265	1,018	831	42,924
9.	659	516	20,739	709	612	18,684	1,368	1,128	39,423
10.	1,262	1,068	40,780	1,488	1,124	44,423	2,750	2,192	85,203
Totals	8,999	7,610	244,973	10,867	8,978	259,478	19,866	16,788	504,451

## PRIVATE HIRE

Period 1.1.49—30.6.49			Period 1.7.49—31.12.49			Total		
Cases	Jour- neys	Mileage	Cases	Jour- neys	Mileage	Cases	Jour- neys	Mileage
1,384	875	38,947	2,151	1,739	59,338	3,535	2,614	98,285

## **Section 28.—Prevention of Illness, Care and After Care.**

**Nursing Equipment and Apparatus.** The organisation of the Medical Comforts Scheme carried out on behalf of the County Council by the British Red Cross Society and the St. John Ambulance Brigade has been gradually built up throughout the last twelve months into a useful service which is steadily expanding.

The British Red Cross Society have now 61 Medical Comfort Depots working, 11 of which are main centres holding, in addition to the normal stock, that equipment which is in less general use such as wheel chairs, spinal carriages, hospital type bedsteads and dunlopillo mattresses.

The St. John Ambulance Brigade are manning 29 depots, five of which are classed as main ones on similar lines to those held by the British Red Cross Society.

With very few exceptions the District Nursing Associations have generously put their Medical Comforts under the care of the nearest depot without any reserve. In actual practice much of it has been left with the District Nurse for emergency use, but the depot holder is responsible for its maintenance and for the recovery of hire charges as she is for all other equipment on her lists.

An excellent liaison is being established between the District Nurses and the depot holders and the plan for the Nurses to hold an emergency stock of small articles in constant demand is working well. As far as the patient is concerned most of his medical comforts are still brought to him by the nurse and it is only when she cannot supply his wants that he needs an authorisation from his doctor or nurse to enable him to apply to the depot direct.

When a District Nurse draws on her emergency stock she is expected to notify the depot holder immediately in order that she may have the loan replaced and so that the depot holder may arrange for the recovery of the approved hire charges and ultimate return of the loan. The depot holder is also responsible for the adequate cleansing of all medical comforts as soon as they are returned and before they are taken into stock again for further use.

The stock of each depot is being gradually brought up to a minimum standard by the purchase of equipment as required.

It is to be appreciated that the personnel required to man the total of 90 Medical Comfort Depots on a voluntary basis throughout the county is no mean task. The fact that it is being done is a tribute to the voluntary spirit which is such a strong tradition in Somerset.

## **Section 29. Home Help Service**

The County is divided into six areas with centres at Weston-super-Mare, Bridgwater, Wells, Midsomer Norton, Yeovil and Taunton, and is at present staffed by the County Council with a County Organiser, two County Area Organisers at Bridgwater and Yeovil, with one full-time and ten part-time clerks.

The areas of Weston-super-Mare, Midsomer Norton, Wells and Taunton are still ably run by organisers from the Women's Voluntary Services. Invaluable help is given by members of this service and other voluntary workers in the smaller towns and rural districts. These voluntary helpers have given their time and energy with enthusiasm to build the Service to its present strength, and their local knowledge has been found particularly helpful.

Owing to the rapid expansion of the Service the W.V.S. area organisers of Taunton and Weston-super-Mare are finding the work involved too heavy with their other commitments, and have signified their intention of resigning on January 1st and February 1st, 1950 respectively. Two County Council area Organisers are being appointed to replace them.

Office accommodation has been obtained in the Health Centre at Bridgwater and in the Ministry of National Insurance Offices at Yeovil. It is hoped that office accommodation will eventually be found in the Health Clinics at Yeovil, Weston-super-Mare and Taunton.

The scheme is worked in close liaison with the General Practitioners, Hospital Almoners, District Nurses, Health Visitors, Children's Officer, National Assistance Board, the N.S.P.C.C. and the County Association for the Blind. Help is sent in cases of medical need or where children under school age are temporarily deprived of a mother's care and there is no other way of dealing with the situation. Cases are accepted only when recommended by one of the above. The organiser is responsible for reducing the hours and for withdrawing the help as soon as she considers it reasonable, but never does so without first consulting the doctor or nurse in attendance on the case. Where there is no medical attendant, variation of Home Help time allotted may be made at the request of the householder.

The number of Home Helps at present on the register is 410, a large percentage of whom are women with a few hours spare time daily. The service has become a very popular one, and is attracting a very good type of worker. The fact that there is a waiting list of Home Helps in most areas enables the organiser to choose her helps with great care, and gives the Helps chosen an increased pride in the service. The standard of work, cleanliness and conduct is gradually becoming higher. In the winter, Home Helps were invited to attend voluntarily a Course on Housecraft and Invalid Cookery which was arranged at Bridgwater by the County Education Committee. This was an experiment which proved very successful. Twenty out of the fifty Home Helps in the town took advantage of the lectures, which were held in the evenings at weekly intervals. It is hoped that similar lecture courses may be arranged in other towns in the future.

A small band of picked women are employed as residential helps to cover cases in isolated places, or where the patient or small children cannot be left alone at night. The majority of cases requiring such residential helps are maternity cases in outlying farms or farm cottages.

The average number of Householders helped weekly has risen from 370 in October, 1949, to 495 in December, 1949. Of these the majority are maternity cases or cases of old people who are either infirm or ill through various causes. The number of maternity cases attended since the inauguration of the scheme in July, 1948 is over 1,000. Home Helps sent to these cases enable the family to stay together as a unit, and substantially reduce the strain on accommodation in maternity and children's homes. A fortnight's help is allowed for each maternity case, but extra help is given either before or after the confinement at the request of the District Nurse or Doctor. Normally the Home Help briefed for a maternity case pays a pre-natal visit to the home a week or so before the confinement in order to familiarise herself with the normal routine of the household.

There is a great demand for Home Helps by Hospital Almoners and patients are often able to leave hospital many weeks earlier than would be possible without the provision of help. Some difficulty has been encountered from time to time in providing Home Helps for open cases of Tuberculosis. The organisers are instructed to invite older women, preferably over 40 years

of age with no young children in their homes, to undertake these cases, but no pressure is exerted upon them in any way to accept such work. The Helps are given practical instructions in the simple precautions they should take to avoid infection, and are assured that if these are carried out the risks to themselves are negligible. In this way a Home Help has usually been found who is willing to undertake this work which is often pressing and urgent.

The routine visits of the organisers are obviously welcome in the homes of the aged, and the kindness and patience of the Home Helps is particularly noticeable there. The numbers of the old and infirm needing care are steadily on the increase. Nearly 400 people of over 70 years of age are looked after weekly in the County of Somerset. Many of them, living on small private incomes, are unable to afford the help which is a necessity to them. The official time given to such cases varies according to the medical need, and may be as little as three hours a week. The practical help afforded in this way is vital, but of no less importance is the companionship which the Home Helps gives the patient on her visits. In some instances she is almost the only visitor the patient ever sees, and her arrival is awaited as a major event. The Home Help often becomes very attached to the old people to whom she goes, and it is in this branch of the work where the spirit of service, on which the Home Help Service prides itself, is particularly noticeable. The Home Help is regarded as a friend of the family, and frequently a Home Help will go back to her cases on her own initiative and in her own time to perform innumerable little acts of kindness.

## **Section 51.—Mental Health Services.**

**Administration.** The Health Committee, at their meeting on the 7th June, 1949, appointed the Mental Health Sub-Committee and delegated to this Sub-Committee all the powers of the Committee under the Mental Deficiency Acts 1913-38 and the Lunacy and Mental Treatment Acts, 1890-1930.

The Local Health Authority is responsible for the initial care and conveyance to hospital or an Institution of patients suffering from mental illness and mental defectiveness and for their after-care.

**Mental Deficiency.** The Local Health Authority has a duty under the Mental Deficiency Acts to ascertain what persons within their area are defectives and to arrange for their care in an Institution, or under guardianship, or by supervision. The Local Mental Health Authority is also empowered to provide training or occupation for defectives under supervision or guardianship, and to contribute towards the expenses of defectives under guardianship in certain cases.

An indication of the way in which these duties have been carried out during the year appears in the following paragraphs.

It will be observed that during 1949, 153 defectives have been found to be "subject to be dealt with" and that of these all but 42 have been reported by the Local Education Authority under Section 57 of the Education Act, 1944.

The Board of Control have approved certain Institutions in the County and adjacent areas as "Places of Safety" for the purposes of Section 15 of the Mental Deficiency Act, 1913. Mental Defectives are admitted to such places pending an Order being made sending them to an Institution, where a high degree of urgency exists or this course is deemed desirable.

The following are:—

I. PARTICULARS OF MENTAL DEFECTIVES AS ON 31st DECEMBER, 1949 in the form required to be forwarded to the Board of Control annually.

N.B.—No case entered in under more than one heading of (1) or (2) and only “live” cases are included

	Male.	Female.	Total.
(1) Number of Ascertained Mental Defectives Found to be “Subject to be dealt with” :—			
(a) In institutions (including cases on licence therefrom)—			
Under 16 years of age ... ..	52	37	89
Aged 16 years and over ... ..	466	480	946
(b) Under Guardianship (including cases on licence therefrom)—			
Under 16 years of age ... ..	2	5	7
Aged 16 years and over ... ..	82	86	168
(c) In “places of safety” ... ..	1	—	1
(d) Under Statutory Supervision (excluding cases on licence)—			
Under 16 years of age ... ..	100	79	179
Aged 16 years and over ... ..	97	67	164
(e) Action not yet taken under any one of the above headings ...	10	15	25
TOTAL ascertained cases found to be “subject to be dealt with” ...	810	769	1,579
No. of cases included in (b) to (e) above awaiting removal to an Institution ... ..	25	33	58
(2) Number of Mental Defectives not at present “subject to be dealt with” but over whom some form of voluntary supervision is maintained—			
Under 16 years of age ... ..	18	7	25
Aged 16 years and over ... ..	502	398	900
TOTAL number of mental defectives (1) plus (2) ... ..	1,330	1,174	2,504
(3) Number of Mental Defectives Receiving Training—			
(a) In day-training centres—			
Under 16 years of age ... ..	22	20	42*
Aged 16 years and over ... ..	6	2	8*
(b) At home ... ..	—	—	—
*Included in (1) and (2) above. TOTAL	28	22	50

II. PARTICULARS OF CASES REPORTED DURING THE YEAR, 1949.

(1) Ascertainment.	Males	Females	Total
(a) Cases reported by Local Education Authorities (Section 57, Education Act, 1944)—			
(i) Under Section 57 (3) ... ..	29	23	52
(ii) Under Section 57 (5) :—			
On leaving special schools ... ..	8	8	16
On leaving ordinary schools ... ..	28	15	43
(b) Other ascertained defectives reported during 1949 and found to be “subject to be dealt with” ... ..	19	23	42
TOTAL ascertained defectives found to be “subject to be dealt with” during the year ... ..	84	69	153
(c) Other reported cases ascertained during 1949 who are not at present “subject to be dealt with” ... ..	11	11	22
TOTAL number of cases reported during the year ... ..	95	80	175

						Males	Females	Total
(2) Disposal of cases reported during the year.								
(a) Ascertained defectives found to be "subject to be dealt with"								
(i)	Admitted to Institution	...	...	...	...	16	14	30
(ii)	Placed under Guardianship	...	...	...	...	6	11	17
(iii)	Taken to "places of safety"	...	...	...	...	—	—	—
(iv)	Placed under Statutory Supervision	...	...	...	...	54	36	90
(v)	Died or removed from area	...	...	...	...	1	—	1
(vi)	Action not yet taken	...	...	...	...	7	8	15
TOTAL ascertained defectives found to be "subject to be dealt with" (to agree with the total of (1) (a) and (1) (b) above)						84	69	153
(b) Cases not at present "subject to be dealt with"								
(i)	Placed under Voluntary Supervision	...	...	...	...	5	2	7
(ii)	Later found not to be defective	...	...	...	...	2	3	5
(iii)	Died or removed from area	...	...	...	...	1	2	3
(iv)	Action unnecessary	...	...	...	...	3	3	6
(v)	Action not yet taken	...	...	...	...	—	1	1
TOTAL cases not at present "subject to be dealt with" (to agree with the numbers entered under (1) (c) ... ..)						11	11	22

III. NUMBER OF MENTAL DEFECTIVES IN INSTITUTIONS UNDER COMMUNITY CARE INCLUDING VOLUNTARY SUPERVISION OR IN "PLACES OF SAFETY" ON 1st JANUARY, 1949, WHO HAVE CEASED TO BE UNDER ANY OF THESE FORMS OF CARE DURING 1949.

						Males	Females	Total
(a)	Ceased to be under care	...	...	...	...	15	19	34
(b)	Died, removed from area, or lost sight of	...	...	...	...	27	15	42
TOTAL						42	34	76

IV. OF THE TOTAL NUMBER OF MENTAL DEFECTIVES KNOWN TO THE LOCAL HEALTH AUTHORITY.

(a) Number who have given birth to children during 1949:—

(i)	After marriage	...	...	...	...	...	...	1
(ii)	While unmarried	...	...	...	...	...	...	4

						Males.	Females.
(b)	Number who have married during 1949	...	...	...	...	—	—

**Occupation Centres.** The Centres established at Bridgwater, Taunton, Weston-super-Mare and Yeovil for children who are incapable of receiving education at school, have shown good progress during the year. Approximately fifty-five children have been in regular attendance. A new Centre was opened at Radstock in September and is working well. Mid-day meals are provided by the School Meals Service, and in certain approved cases transport arrangements are made for the children where local bus services are inadequate, and in cases of hardship, the cost of bus fares is allowed.

It is a pleasure to record that the number of children, on leaving the Centres, have been placed in remunerative employment in factory, domestic and agricultural work.

The progress made by most of the children attending the Centres has been encouraging.

**Licensed Patients.** The County Council are responsible for the supervision of 44 patients on licence in this County from other Out-County Institutions.

Close co-operation has been maintained during the year between the Staff of the Local Health Authority and the South Western Regional Hospital Board and the several Hospital Management Committees within the area of the Administrative County. It has been possible to come to an arrangement with the Sandhill Park Group Hospital Management Committee concerning the joint use of Mental Welfare Visitors in regard to the supervision of patients on trial or on licence from Mental Deficiency Institutions.

**Lunacy and Mental Treatment.** The following cases were dealt with under the Lunacy and Mental Treatment Acts during the period 1st January to 31st December, 1949:—

County Area.	Admissions.				Total	Other Action.
	Certified cases	Voluntary cases	Temporary cases	Section 20/21 Lunacy Act		Advice, etc. Social Histories
Clutton ... ..	17	6	—	13	36	82
Frome ... ..	18	16	—	12	46	49
Minchhead ... ..	11	14	—	—	25	38
Shepton Mallet ... ..	29	2	—	1	32	24
Taunton ... ..	69	36	4	—	109	233
Weston-super-Mare ... ..	51	14	—	—	65	44
Wincanton ... ..	5	4	—	1	10	37
Yeovil ... ..	24	48	—	—	72	118
<b>Total ...</b>	<b>224</b>	<b>140</b>	<b>4</b>	<b>27</b>	<b>395</b>	<b>625</b>

**Hospital and Institutional Accommodation.** In my report for the year 1948, I referred to the hospitals situated in the County which had been designated as mental hospitals by the Minister of Health, and institutions to be used as mental deficiency institutions were also detailed.

There has been no material increase in the accommodation available in hospitals for either mental or mentally deficient patients. In the case of the latter, the position remains acute, and it has only been possible to admit fresh cases as vacancies occurred. On the 31st December there were 40 cases on the waiting list for mental deficiency institutions, most of these being young children of low mental grade whose presence in their homes has become a very serious burden to the parents.

During the year, the problem of the accommodation of senile patients has become critical. These old people mainly suffer from the burden of their years, and in most cases it is considered undesirable that they should be certified under the Lunacy Acts. It has been possible to arrange for the admission of nineteen patients referred to the Local Health Authority most of

whose ages ranged between 70 and 90 years, to Weymouth Hospital, Frome, as their homes were within easy reach of that Hospital. Those patients were not certified as of unsound mind. In other parts of the County there has been no alternative but to send the old people concerned to Mental Hospitals for treatment, although it was known that by doing so an additional burden was placed upon the Hospital Authority and Staff in admitting them to wards in which the accommodation problem had already become very acute.

At the end of the year it became known that the accommodation at Weymouth Hospital would be very much reduced. It is most distressing that there should be no other course than that these old people should end their days in a mental hospital, but it is difficult to see how the problem is to be overcome. The matter is one for consideration by the Regional Hospital Board, and representations are being made to them.

The intention of the South Western Regional Hospital Board to close the two Hostels at Milverton which provided accommodation for some 60 mentally defective patients, was noted with regret.

**Mental Health Clinics.** It is proposed that in the course of time a Mental Health Clinic shall be established for each of the County areas, but this proposal has yet to be developed. At present, however, there are clinics at Bridgwater, Minehead, Taunton and Yeovil, operated by Tone Vale Hospital; and Clinics at Wells and Weston-super-Mare operated by the Mendip Hospital Mental Health Clinics established by Hospitals in Bristol and Bath County Boroughs at present serve part of the Northern Area of the County.

The clinics are held regularly at the following centres:—

Name of Clinic.	Started.	Medical Officer.	No. of Sessions.	New cases seen.	Average attendance per Session.
Bridgwater Health Centre	Dec., 1932	Dr. K. C. Bailey...	52	34	3.4
Minehead Hospital	July, 1946		51	40	5.4
Taunton Hospital	Nov., 1945		48	189	58.9
Yeovil Hospital	April, 1931		52	152	28.5
Mendip Hospital, Wells ...	May, 1946	Dr. J. McGarvey...	52	7	23(total)
Weston-s.-Mare Hospital	Dec. 1932		42	69	8

**After-Care.** The County Council have undertaken the responsibility for certain after care arrangements in respect of persons who have attended Mental Health Clinics or on departure from Mental Hospitals. At the request of the Medical Superintendents of the Hospitals concerned in the County, the Council's Duly Authorised and Mental Welfare Officers take part in such arrangements.

Such cases of patients requiring rest after treatment at Mental Health Clinics and Hospitals may be admitted to Holiday Convalescent Homes, and the Local Health Authority have accepted responsibility for the fees pursuant to Section 28 (1) of the National Health Service Act, 1946.

**Ambulances.** The removal of Mental Health patients to and from their homes and institutions is usually undertaken by the Duly Authorised Officer or Mental Welfare Visitor.

These Officers may book an ambulance or sitting ease car through the Authority's General Ambulance Scheme if necessary, and in difficult cases they are able to apply for the assistance of trained staff from the Hospitals for the removal of patients.

**Voluntary Associations.** Full co-operation with the Somerset Association for Mental Welfare has been maintained and in this way local knowledge, information and advice has been freely available to the Council's Officers.

**Staff.** The staff employed in the County Health Department on Mental Health Services is as follows:—

(a) **Medical Officers.**

The County Medical Officer of Health and the Deputy County Medical Officer of Health are engaged part time in mental health service work for administration. A Senior Medical Officer of the Department has been placed in medical charge and directs the Mental Health Services. There are also four other Medical Officers approved by the Local Health Authority for giving certificates under the Mental Deficiency Act, 1913, and for making recommendations under Sections 1 and 5 of the Mental Treatment Act, 1930, one of these Officers is employed full-time by the County Council as School Medical Inspector. Three of these Officers are engaged part-time on a sessional basis. The total medical staff is, at present seven.

(b) **Non-Medical Staff.**

The Mental Health Services are supervised by a full-time Mental Health Officer, assisted by an Administrative Assistant. There are three Mental Welfare Visitors, an Organising Instructress for Occupation Centres and five Supervisors for the Occupation Centres at Bridgwater, Radstock, Taunton, Weston-super-Mare and Yeovil; together with the Superintendent and eight Duly Authorised Officers for the County areas.

(c) **Clerical Staff.**

Senior Clerks (Male)	...	...	...	...	...	...	2
,, Clerk (Female)	...	...	...	...	...	...	1
Clerk (Male)	...	...	...	...	...	...	1
Clerks (including shorthand-typists) (Female)	...	...					5
							<hr/>
							9
							<hr/>

Of the non-medical staff, all officers are full-time with the exception of four of the Duly Authorised Officers who are also Registrars of Births, Deaths and Marriages, and are thus engaged part—time for Mental Health Services work.

By arrangement with the Clerk of the County Council, the Duly Authorised Officers continue to carry out certain welfare duties on request and a few investigations have been made on behalf of the Children's Committee.

The Mental Health Officer and Administrative Assistant for Mental Health Services are Petitioning Officers under the Mental Deficiency Acts and are also Duly Authorised Officers. The Mental Welfare Visitors (3) are also appointed Duly Authorised Officers in special circumstances.

One of the Mental Welfare Visitors referred to above retired during the year on the grounds of ill health. The Sandhill Park Group Hospital Management Committee decided to assume responsibility by the 1st October, 1949, for the supervision of Mentally Defective patients on licence from their Institutions. The remaining two visitors were offered appointments in a similar capacity with the Management Committee and accepted them. An appointment has been made to fill one of the vacancies and consideration will be given to the question of the remaining vacancies being filled early in the New Year.

The arrangements previously made with the Tone Vale Hospital Management Committee for suitable training to be given to non-medical Mental Health Workers in all such duties as are new to them in the field of Psychiatric Social Work have been continued and a course of lectures has been given by arrangement with the Medical Superintendent of the Hospital and his Deputy. Lectures have also been given to Officers in Mental Deficiency Work by the Medical Superintendent of Sandhill Park.

One of the Senior Clerical Assistants is under training as a Duly Authorised Officer.

**General.** The scheme for Mental Health Services as contained in the Local Health Authority's proposals under Section 51 of the National Health Service Act, 1946, is not yet fully implemented, but adjustments are being made in the light of experience. The main difficulty of inadequate hospital and institutional accommodation remains, but generally speaking, progress through the year has been smooth and this is due to a large extent to the measure of co-operation which continues between the Local Health Authority, the Regional Hospital Board and other Authorities concerned.

In addition, I would like to mention the members of the County Police Force who have been called upon during the year in several difficult cases. Their assistance has always been readily given and is greatly appreciated by the Officers of this Local Health Authority.

While the general public may not yet be fully aware of the services provided for them under the Mental Health Services Scheme and of the benefit which may be brought to those suffering from mental illness or defectiveness, there is a growing recognition of its value. I would like to record my appreciation of the very valuable co-operation between Medical Practitioners, Specialists and others engaged in the field of Mental Health, with the Officers of the Local Health Authority.

## WATER SUPPLIES.

The shortage of materials and long delays in the delivery of fittings and pipes were contributory factors in slowing progress in the provision of piped supplies to existing houses. New works mainly comprised extensions to new Housing Sites.

A new service to Priston in the Bathavon village area was completed and the supply to Peasedown augmented. Works were also carried out to provide additional water to Dulverton and Brushford in the Dulverton Rural District.

Steady progress is being made in the Langport rural area in carrying out Stage II of the Eastern Parishes scheme. The 10in. main from the borehole at Compton Durville to the main reservoir at One Elm was completed and the reservoirs at both places are nearing completion. These works are preliminary to the provision of a supply to the six Eastern Parishes, viz.,

Compton Dundon, Kingweston, Barton St. David, Keinton Mandeville, Babeary and Charlton Mackrell. The supplies to Somerton and Long Sutton will also be augmented and extensions to Lydford in Shepton Mallet rural and the parishes of Butleigh and Baltonsborough in Wells rural are possible.

The implementation of schemes is a slow process and although proposals have been approved respecting supplies for the rural districts of Wells, Shepton Mallet and Frome it may be several years before many of the parishes, who are in urgent need, receive any water. As standards of milk production improve so does the consumption of water increase. The highest priority should be given to schemes serving agricultural areas where existing supplies are inadequate and of doubtful quality. Milk of good keeping quality cannot be produced unless there is a sufficient supply of wholesome water.

Owing to the prolonged hot and dry period experienced during the summer it was found necessary to curtail supplies in the following areas, particularly in the months August to the end of October:—

Urbans—Bridgwater, Glastonbury, Norton Radstock, Shepton Mallet, Taunton, Watchet and Yeovil.

Rurals—Bathavon, Long Ashton, Wellington and Yeovil.

Shortages were felt in other districts but not to the same extent as in those mentioned.

Throughout the County generally the outlook for the future is very favourable respecting the existing and potential sources of supply. Taking a line north of the Mendip Hills, the Chew Valley reservoir when completed will provide a good surplus and act as a safeguard to supplies in the northern zone.

From other resources of the Bristol Waterworks Company it will also be possible to supplement supplies to the south of the Mendip Hills in the Wells area.

The development of the Ashwick Grove and St. Dunstan's Well sources in the Shepton Mallet rural area together with the chief existing supplies should ensure a sufficiency for the Shepton Mallet and Frome districts.

Wincanton's future needs will be met following the joint scheme with Sherborne Rural District Council.

Supplies in the Yeovil area, which has had to find considerable water to meet the demands of the Forces, will be secured by the completion of the impounding reservoir at Sutton Bingham.

With the sinking of a further borehole at Combe St. Nicholas together with the water that abounds in the Tatworth area, the Chard district including Chard Borough, Crewkerne and Ilminster Urban Districts should have a sufficient supply.

The yield of the boreholes at Compton Durville is considerable and will serve the Langport area and augment the supplies to adjoining districts if found necessary.

The population in the Dulverton area is widely scattered and local supplies will probably meet all needs.

If Taunton Corporation's project to provide an impounding reservoir at the head of the River Tone in the parish of Clatworthy matures this will not only meet the future requirements of the Borough's statutory area but will help to augment and safeguard the future needs of the

Williton and Wellington Districts and Watchet. Minehead could also be served but at the moment is well catered for by the large reservoir at Nutscale. The requirements of the eastern part of Taunton rural will cease to cause anxiety if the proposed impounding reservoir at Ruttersleigh is eventually constructed. This source could also augment supplies to the south-eastern part of the Bridgwater Rural District.

The Bridgwater district is served by the two reservoirs at Ashford and Durleigh; to meet any increase in consumption the needs could possibly be met by water from either Taunton Corporation's projected new source to which reference has been made or from the Bristol Waterworks' resources in the Cheddar Valley. The latter source could doubtless augment supplies to the Burnham and Highbidge, Weston-super-Mare and Axbridge areas if required.

Details of the works carried out during the year by the district authorities together with proposals under consideration are as follows:—

### Urban Areas.

**BRIDGWATER.** An 8in. main was laid linking Durleigh Road to Hamp to increase the pressure in the area. (This work is part of the High Level Scheme.)

Other than extensions to new housing sites no new works are contemplated.

The supply had to be restricted during August.

**BURNHAM.** A stand-by pumping set at the Borehole Site was provided and defective lengths of pipes in the distribution system were replaced.

A geographical survey for a new borehole was made.

It is proposed to provide a new borehole at Winscombe and lay a new main to the service reservoir at an estimated cost of £5,500.

**CHARD.** No extensions or works were carried out during the year but it is proposed to supplement the supply to the High Level Zone as the yield from the existing well is so low as to cause some concern.

**CLEVEDON.** No extensions or works were carried out during the year but consideration is being given to the provision of a supply to Norton's Wood and Kenn Pier.

**CREWKERNE.** Improvement works in the collection of water at the source were carried out at Wayford.

**FROME.** 3in. mains were laid to supply the Woodland Road housing site and property at White-well Road.

**GLASTONBURY.** A Booster Plant on the West Pennard trunk main was provided and a pumping station with duplicate plant was erected over No. 2 Borehole at West Compton. Works in hand include the provision of a new High Level Reservoir and mains for supplying the higher parts of the area and the provision of a Booster Plant for increasing the pressure in the Low Level System.

A scheme for supplying the Brindham and Wick areas at an estimated cost of £10,250 has been submitted to the Ministry of Health.

A shortage of water was experienced and the hours of supply had to be limited from August to the end of October.

MINEHEAD. 100 yards of 3in. main was laid at Hopcott Close to improve the pressure.

Consideration is being given to the whole question of distribution and grouping of the water storage together with adequate sterilisation of the sources of supply.

NORTON RADSTOCK. Owing to depreciation several services have had to be renewed and extensions were provided to new housing sites.

It is proposed to extend the 3in. main at Underhill Lane for 150 yards to serve property now in course of construction and to supplement the 3in. main in the Wells Road area by approximately 1,500 yards of 6in main.

Owing to the abnormally dry summer months supplies had to be curtailed in the evenings.

PORTISHEAD. Extensions have been made to serve new housing sites.

SHEPTON MALLET. Several small mains extensions are in hand, principally in connection with the Housing Estate at Ridgeway.

It is hoped to commence work shortly on the loop main from West Shepton via Hitchen Lane to Ridgeway.

In consequence of the dry summer supplies had to be restricted.

STREET. The sanction of the Ministry of Health was obtained to relaying 7,840 yards of the 15in. main from Rodney Stoke to Street.

TAUNTON. The laying of 1½ miles of 12in. diameter pipe in the Borough was completed during the year and has greatly improved the distribution system.

Consideration is being given to the provision of a new source at the head of the River Tone in the parish of Clatworthy in the Williton Rural District.

Owing to the very droughty summer supplies were cut off from 5 p.m. to 6 a.m. from the end of August to the end of October.

WATCHET. Owing to the diminishing yield of the springs due to the long dry summer it was found necessary to curtail supplies.

WESTON-SUPER-MARE. New distribution mains were laid to supply new houses in the Martindale, Alexandra and Bournville Estates.

Future proposals include:—

	Estimated cost. £
Distribution mains to the Summerlands Estate ... ..	5,440
12in. Trunk Main from Waterworks, Milton Road to Hill Road ... ..	7,000
Extension of distribution main from Sand Bay to Sand Point ... ..	3,000
Extension of distribution main from Kewstoke Road to Norton ... ..	2,400
Provision of distribution mains to the Bournville and Preaues Green Estates.	

Owing to a shortage of water, supplies had to be curtailed from the end of August to late October.

## Rural Areas.

**AXBRIDGE.** At Congresbury in the Brinsea area 2,220 yards 3in. main were laid. Chemical cleansing of existing mains was carried out at Blagdon where approximately 2,000 yards 3in. main were treated. It is proposed to continue this work in the area and a further 3,200 yards will be treated in the coming year.

550 yards 3in. and 1,057 yards 1in. main will be laid at Locking at an estimated cost of £860.

**BATHAVON.** A supplementary supply was afforded to Peasedown St. John and the supply to the parish of Priston was also completed. Arrangements have been made with the statutory undertakers for extensions to supply housing sites in Batheaston, Englishcombe, Monkton Combe and Weston.

During the coming year it is hoped to put in a modified supply to Newton St. Loe and Swineford and negotiations are taking place to provide a supply to Compton Dando.

The scheme for supplying Dunkerton village, estimated to cost £5,700 is to be placed before the Ministry of Health for approval.

Owing to the very dry summer it was found necessary to curtail supplies at Bathampton. Certain private supplies failed and an emergency service had to be operated.

**BRIDGWATER.** No extensions or improvement to supplies were carried out during the year. Approval has been given to the Over Stowey scheme and the work will soon be commenced.

**CHARD.** Works carried out during the year comprise a second borehole at Pole Rue, Combe St. Nicholas, a new pumping station at Stowell, Tatworth, and an extension of the 2in. main at Barrington Hill, Broadway.

Future proposals include:—

	Estimated cost. £
Installation of pumping equipment at Stowell pumping station ... ..	1,363
3in. extension to Newtown, Buckland St. Mary ... ..	1,234
3in. extension to Moolham Housing Site, Dowlish Wake ... ..	212
3in. extensions to Golden Fleece, Tatworth, and to Bridge, Ammerham and Winsham ... ..	2,550

A scheme is being prepared for a 3in. branch main to Roundham, West Crewkerne, and it is hoped to complete the proposals for the Regional Augmentation Scheme.

**CLUTTON.** The 3in. main was extended from Old Mills to Boxbury Hill, Paulton, a distance of 607 yards. A 3in. temporary main was also laid from Meadgate to Hock, Timsbury to connect up with the Bathavon Rural District Council supply.

It is hoped that work will be commenced shortly on the Chew Stoke Reservoir, which, when completed, will afford supplies to many areas in the district.

**DULVERTON.** Additional springs have been brought in to augment the supplies to Dulverton and Brushford. The Ministry of Health have approved the proposals to supply Huish Champflower at an estimated cost of £3,400.

FROME. No extensions or new works were carried out during the year.

Work will be commenced shortly on the Faulkland extension which will provide a supply to the parish of Hemington, the estimated cost of which is £22,551.

Preparations are being made of schemes to supply Lullington, Laverton and a part of Beckington with water from the Westbury Water Board and to take a bulk supply from Shepton Mallet Rural District Council to serve the whole western area of the district.

LANGPORT. Work on Stage II of the Eastern Parishes Scheme was continued during the year. The 10in. main from Compton Durville to One Elm was completed and the reservoirs at Compton Durville and One Elm are almost finished and ready for testing.

It is hoped that Stage III of the Eastern Parishes Scheme will be commenced at the end of 1950. This work will afford supplies to the parishes of Compton Dundon, Kingweston, Barton St. David, Keinton Mandeville, Babcary, Charlton Mackrell and augment the supply to Long Sutton and Somerton. The starting date, however, has yet to be fixed by the Ministry of Health.

LONG ASHTON. The following improvements of supplies were made during the year:—

*Kenn*—extension of 3in. main from the Yatton Parochial supply towards Kenn Court Farm.

*Easton-in-Gordano*—extension of the Portishead Water Company's 3in. main from Markham to Haberfield.

*Kingston Seymour*—extension of the Yatton Parochial supply to the centre of the village.

*Bishopsworth*—extension of the Bristol Waterworks Company's main along Highridge Common.

*Backwell*—extension of the Council's main to the hamlet of Downside.

Proposals under consideration include:—

	Estimated cost. £
<i>Yatton</i> —new borehole, pumping plant and station and increased storage ...	15,100
<i>Kingston Seymour</i> —further main extensions from the centre of the village to the outer areas of the Yatton Parochial Supply ... ..	2,050
<i>Barrow Gurney</i> —extension of Bristol Water Company's main to Barrow Hill and district ... ..	7,274
<i>Dundry</i> —provision of mains to Dundry by the Bristol Waterworks Company ...	35,591
<i>Tickenham</i> —Extension of the Clevedon Water Company's main to Stone Edge Batch and Tickenham Hill ... ..	2,680
<i>Clapton-in-Gordano</i> —extension of Portishead Water Company's main to village	9,387
<i>North Weston</i> —provision of main supply by Portishead Water Company to Redcliffe Bay area ... ..	21,218

Due to the drying up of wells and springs in the Barrow Hill, Barrow Gurney, and Clapton-in-Gordano districts an emergency service had to be operated.

SHEPTON MALLET. No extensions or new works were carried out during the year.

The Ministry of Health gave approval to the Ashwick Grove and St. Dunstan's Well Joint Water Scheme with the Frome Rural District Council which will augment the existing supplies and afford a bulk supply to the Frome R.D.C.

TAUNTON. Extensions of mains were made to housing sites at West Monkton, Creech St. Michael and Bishops Hull.

Future proposals include the provision of main supplies to the parishes of Cheddon Fitzpaine, Churchstanton, Creech St. Michael, Durston, Kingston, Otterford, Pitminster, Stoke St. Mary, Tolland, West Hatch and West Monkton.

WELLINGTON. At Chipstable the mains were relaid and extended.

Ministry of Health sanction has been given to the mains extension from Bradford to Hillfarrance, Oake and Hillecommon and an investigation is being made into a possible source of supply for the village of Waterrow.

Owing to shortage it was found necessary to haul water to premises in Ashbrittle, Langford Budville, Sampford Arundel, Wellington Without, and Wiveliscombe Without.

WELLS. A main supply has been afforded to Walton and extensions have been made in Wookey and Drayeott to supply new housing sites. A portable chlorination plant was purchased for use at Baltonsborough in times of shortage.

Ministry of Health approval has been given to provide temporary village schemes at Wookey, Drayeott and Coxley, and the preparation of main schemes for Meare, Rodney Stoke, Westbury, Easton, Wookey and Coxley are nearly completed.

WINCANTON. A short 4in. main was laid to improve the supply at Sandyeombe, Templecombe, and a new main laid to replace an old service main to Overdene Farm. Surplus water from the Sigwells springs was connected to the Sparkford and Queen Camel system.

A comprehensive scheme, in conjunction with Sherborne Rural District Council, is being prepared and it is hoped will shortly receive the sanction of the Ministry of Health. When completed it should provide the whole district with sufficient water for its needs.

YEOVIL. A scheme for supplying the village of Closworth has been completed and the Odeombe Reservoir will shortly be finished. Work has also started on the laying of 3,600 yards 9in. main and 900 yards 6in. to Ilchester.

Ministry of Health sanction is awaited to the comprehensive scheme comprising an impounding reservoir at Sutton Bingham and large trunk mains linking up most of the existing mains.

Owing to the prolonged dry spell it was found necessary to restrict supplies to a number of parishes.

### SEWAGE DISPOSAL.

Works of sewerage were mainly confined to extensions to serve new housing estates. Some of these entail the laying of sewers well over half a mile in length.

No works were begun on new schemes or on new purification plant during the year. The disposal works at Wineanton were completed during the year and as a result the condition of the River Cale has vastly improved.

In a circular issued in 1947 the Ministry intimated that approval would not be given for the immediate execution of schemes if the cost per house exceeded £120 and even at this figure only in

exceptional cases. Prices still tend to rise, however, and where the flat nature of the ground necessitates the pumping of sewage, schemes submitted show that the cost per house may amount to £250 or more than double that to which the Ministry will give approval.

Water closets and water carriage systems can no longer be looked upon as amenities any more than a piped supply of wholesome water. Unfortunately the small number of houses in villages and their general straggling nature makes the provision of main sewerage a costly matter. If the standard of sanitation of the rural dweller is to be brought up to the level of that of his urban neighbour, finances will have to be adjusted to ease the burden on the rural authorities.

Works carried out during the year and schemes under consideration are as follows:—

### Urban Areas.

**BRIDGWATER.** No new works or extensions of sewers were made during the year but it is proposed to provide a sewer from the river via Salmon Lane and Penzoy Avenue to the southern portion of the Sydenham Housing Estate.

**CHARD.** The work of extending and reconstructing the sewage disposal works has been completed.

**CLEVEDON.** Work has been commenced on the laying of 970 yards of 18in. sewer to serve houses on the Meadow Road site.

A scheme is being prepared to serve 157 properties on the new housing estate.

**CREWKERNE.** No new works or extensions have been made during the year but future proposals include the substitution of the existing broad irrigation system by a sewage disposal works at an estimated cost of £25,000.

**FROME.** Works of sewerage were completed to serve 30 houses at Rossiters Hill, 60 at Broadway and 17 at Whitewell Road.

Consideration is still being given to the reconstruction of the outfall sewer and purification works.

**GLASTONBURY.** The relaying of the sewer in Benedict Street, provision of a new sewer from the Windmill Housing Site and remedial works at the Northload Bridge Pumping Station were completed during the year.

The Council's Consulting Engineers are preparing a scheme for a new disposal works to deal with the town sewage and trade effluents from two skin-dressing factories.

An extension of the sewer on the Wells Road to serve the Cemetery Lodge and properties adjoining will shortly be carried out.

**NORTON RADSTOCK.** Extensions of sewers were made to serve new housing sites at Glebelands, Walton and Writhlington.

Consideration is still being given to the provision of a sewerage scheme for the Thicket Mead area, Midsomer Norton.

**PORTISHEAD.** Sewers have been laid to serve the West Hill Housing Site and the surface water sewer in Church Road South has been relaid.

**STREET.** An agreement has been entered into with the Wells Rural District Council to receive and treat the sewage from the parish of Walton.

**TAUNTON.** The removal of the sewage disposal works to a site at Ham is under consideration.

**WELLINGTON.** Progress is being made with the extension of the works at Mitchells Pool and these should be completed in 1950.

**WESTON-SUPER-MARE.** Foul and surface water sewers were laid to serve 138 houses and flats on the Bournville Housing Estate.

**YEOVIL.** A Public Inquiry was held in August following an application for loan sanction to borrow the sum of £208,203 to provide for new sewage disposal works.

### **Rural Areas.**

**AXBRIDGE.** No new works or extensions were carried out during the year but future proposals include schemes for Axbridge and Cross and Congresbury and district at estimated costs of £37,000 and £41,600 respectively.

**BATHAVON.** Good progress has been made with the sewerage of Peasedown St. John and the construction of the temporary sewage works has commenced.

A scheme for sewerage Freshford at an estimated cost of £15,000 is about to be submitted to the Ministry of Health and authority to go to tender is awaited for the Wellow, Camerton and Dunkerton scheme. Schemes are also being prepared to serve the London Road area of Bathford and the south-western portion of Peasedown St. John.

**BRIDGWATER.** No new works or extensions have been made but the disposal works at Weston-zoyland and Middlezoy have been taken over from the Air Ministry.

The Northern Parishes scheme is ready for submission to the Ministry of Health.

**CLUTTON.** The Pitway Lane sewer in Farrington Gurney was extended for a distance of 200 yards.

It is proposed to lay a new sewer at Paulton to connect with the Bathavon Rural District Council's extension at Camerton.

**FROME.** No new works or extensions were carried out but consideration is being given to the provision of schemes for Norton St. Philip and Beekington.

**LANGPORT.** Progress is being made with the Somerton Sewerage Extension Scheme but it is not expected that the works will be completed until late in 1951 owing to delays caused by lack of labour.

**LONG ASHTON.** Work has commenced on the construction of the new rising main to the sea outfall and the installation of more powerful pumps at the Yatton sewage pumping station. Minor extensions were also made to serve new housing estates.

Schemes have been prepared and submitted to the Ministry of Health for approval for Portbury, Nailsea and Kenn at estimated costs of £5,200, £83,000 and £5,720 respectively. A tender has been accepted for additions and improvements to Cambridge House disposal works and works of sewerage and sewage disposal at Flax Bourton are contemplated.

**SHEPTON MALLET.** No new works or extensions were carried out other than those necessary to serve new Council houses. The Council's Consulting Engineers have been instructed to prepare detailed proposals for new and improved sewerage systems at Gurney Slade, Croscombe, Stoke Lane and Stratton-on-Fosse, and negotiations have been opened to acquire the Oakhill Sewage Disposal works.

An investigation has started into the possibilities of improving the sewerage at Evercreech as the present system is causing some concern.

**TAUNTON.** New disposal works were constructed to serve the parish of Corfe.

**WELLINGTON.** The reconstruction of the Style Sewage Works at Wiveliscombe and the extension of sewers to Langley were commenced at the end of the year and proposals for a sewerage scheme for West Buckland at an estimated cost of £6,000 is to be submitted to the Ministry of Health.

Plans are being prepared for the reconstruction of the Milverton Sewage Disposal Works and the Hillsmoor works at Wiveliscombe and provision of sewers and sewage disposal works at Bradford-on-Tone, Fitzhead, Sampford Arundel and Langford Budville is to be made.

**WELLS.** To abate a nuisance a sewage ditch at Pear Tree Farm has been piped.

Future proposals include the provision of sewerage and sewage disposal works at Draycott, Rodney Stoke, Easton, Westbury, Walton and Baltonsborough.

**WINCANTON.** The new works at Wincanton have been completed. A small extension was made at Newtown, Milborne Port and considerable progress has been made in searching for and curing the infiltration into the sewers in this district.

A scheme is being prepared for Templecombe and consideration is being given to schemes for North Cheriton and Sutton Montis.

**YEOVIL.** The sewage disposal works at Chilthorne Damer are nearing completion.

A scheme for the erection of a disposal works at Ilchester at a cost of £22,000 has been approved by the Ministry of Health.

Schemes of sewerage and sewage disposal are also in course of preparation for the parishes of Haselbury Plucknett and Mudford.

## RIVER POLLUTION.

In spite of the long hot and dry summer comparatively few complaints were received. The loss of fish life was also small when compared with previous years. The worst case was connected with the River Parrett at Thorney. On investigation there was no evidence of pollution and it was concluded that the cause had been the drawing of hatches to permit of river bank repairs, the low level of the water running at the time, coupled with the high atmospheric temperature.

The worst affected rivers in the County are the Brue, Yeo, Tone, Frome and Axe and constant supervision has been maintained to see that the existing purification plants treating the wastes discharging to these rivers were working as efficiently as circumstances would permit.

A review of the conditions of the five main rivers in the County is appended.

**RIVER AXE.** The trade waste effluent from the St. Cuthbert's Paper Mills at Wookey, Wells, discharges into the river. The condition of the Axe was found to be deteriorating in 1938. Due to little improvement being effected, permission was sought from the Ministry of Health to take proceedings against the Company in July, 1943, but this was refused.

Following this action, however, permits were granted for new plant to be installed at the Mill in 1945/46. This and the supply of better raw material, has resulted in the condition of the river showing some improvement. Conditions, although not yet satisfactory, continue to improve as the treatment of the trade waste is varied following the results of research work being carried out at the Mills by the "Paper Board and the Paper Mill Research Board".

The research workers have been kept informed of the results of previous samples taken from the river and the mill effluent and discussions take place with them on points of mutual interest which may arise during their work.

**RIVER BRUE.** Since before the war this stream has been polluted by the trade wastes from the factories of A. Baily & Co., Ltd., and Clark, Son & Morland, Ltd., of Glastonbury. From the outbreak of war the conditions have gradually become worse. After negotiations between the two firms and the Glastonbury Corporation appeared to be somewhat protracted respecting the discharge of the trade wastes into a proposed new sewerage system, it was decided to seek the permission of the Ministry of Health to take proceedings against the two firms in October, 1948. Consent however was withheld.

The premises of the two Companies adjoin one another. At each the treatment of sheepskins forms the main part of the wet processing. The trade waste treatment works at both premises have been inadequate for some years so that the effluents which are discharged have a high oxygen demand. The effluents discharge into a mill stream which forms the source of both firms' water supply. In time of drought all the water flowing in the mill stream is required by the factories for their processing, so that the mill stream below the factories consists of partially treated trade waste effluent. The mill stream in this area provides the only means of watering a large acreage of land grazed mainly by dairy cattle. Repeated complaints are received from the stock owners who allege that the condition of the mill stream is having a harmful effect on the health of the cattle.

Both firms and the Glastonbury Borough Council, in whose area they are situated, have agreed in principle to the construction of a combined Trade Waste and Domestic Sewage Disposal Works. Negotiations begun in June, 1947, are still continuing but it is hoped that agreement on one or two outstanding details will soon be reached. The Glastonbury Borough Council have, in an endeavour to reduce delay, commenced enquiries for the purchase of the necessary land. The two firms agreed, without prejudice, each to contribute approximately one quarter of the cost of cleansing the mill stream from the factory site to where it joins the River Brue approximately  $1\frac{1}{4}$  miles away.

In June and July losses of fish life were reported at Cold Harbour and above the weir at one of the skin-dressing factories. No evidence was obtained that these losses were attributable to operations at either of the factories. The most probable cause was the de-oxygenation of the stream caused by the low flow and high atmospheric temperature.

**RIVER FROME—FROME U.D.C. SEWAGE WORKS.** Pollution of the river where it passes through and below the town of Frome has been known to occur intermittently since 1937. Representations were made to the various persons concerned and partial improvements effected. In 1945 a detailed survey of the river in the area where it passes through the town was made. Trade wastes found to be discharging into the river at this time were, with the co-operation of the firms concerned and the Local Authority, connected to the public sewers.

The greater problem of the inadequacy of the Sewage Works however remains for the partial treatment to some of the sewage and the total absence of any treatment to a considerable portion of the sewage flow is having a serious effect on the river.

Continuous representations have been made to the Local Authority to treat the construction of new Sewage Disposal Works as urgent but although the Ministry of Health have given agreement in principle to proposals submitted by the former, there has been considerable delay. It is understood that the Consulting Engineers are at present engaged in the preparation of works on the lines agreed by the Ministry of Health.

This is a most serious case which is aggravated by the very low river flow in times of drought.

**RIVER TONE.** Four discharges into the river between Wellington and Creech St. Michael, near Taunton, have been found to have had effects upon the river. The present position from the highest point upstream is as follows:—

*Fox Bros., Wellington.* The effect on the river of the partially treated trade waste from cloth-making has been under more detailed consideration since 1946.

At the suggestion of my Department the Company was asked to obtain the opinion of the Water Pollution Research Board on the practicability of further treating the effluent in the adjoining Sewage Works of the Wellington U.D.C. and to ask the latter the conditions under which they would accept the Company's effluent. As the W.P.R.B. considered this suggestion a practicable one, the Company and U.D.C. arranged for a report from the latter's Consulting Engineers upon the extent of the work which would be involved.

*Taunton Gasworks, Taunton.* Routine sampling of the River Tone between 1945 - 1947 below the Gasworks revealed that the oxygen demand of the river became markedly greater when periods of low river flow coincided with prolonged high temperatures.

The Advisory Chemist to the Liquor Committee of the Gas Works Industry, who was asked for an opinion, suggested that if a new plant for treating the liquor was installed the effluent should then be suitable for discharge to the public sewers.

It is stated that an order has been placed for this plant but under present conditions it is not expected to be in use until the beginning of the summer, 1951.

*Taunton Borough Council Sewage Works.* The size of the Sewage Works was accepted some years ago by the Borough Council as being inadequate to deal with the volume of sewage received at the Works. A scheme was prepared in 1939 and a Public Inquiry held but the proposals had of necessity to be shelved owing to the War. The matter has been further considered since 1945 and discussions have taken place with the Ministry of Health. The Corporation hope to be able to submit their new scheme to the Ministry in the near future.

Due to a considerable amount of the sewage being discharged into the river after only brief sedimentation the river is in almost a septic condition for some distance below the Sewage Works.

*Creech St. Michael Paper Mills.* The prolonged hot dry weather during this summer has led to complaints that the river was giving off obnoxious smells below the Paper Mills. The Paper Mills, whose water supply is taken from the River Tone which is previously affected by the effluent

from the Taunton Borough Council Sewage Works, further contaminates the river in its trade processing. The Paper Mill Company have agreed to effect improvements in their methods of treatment.

In July householders living near the river between Burrowbridge and Knapp, Curry Rivel, complained of an offensive smell from the river. Immediately prior to the commencement of the nuisance torrential rain had fallen after six weeks' drought and apparently accumulations had been built up during this period and had then been swept downstream with the scourings of dried surface water ditches. Arrangements were made to cut the prolific weed growth between Creech St. Michael and Knapp to improve the flow of the river and to clean out the ditch taking part of the drainage from Creech St. Michael and which runs into the north effluent channel of the Creech St. Michael Paper Mills.

In June dead fish were observed in the river between Fire Pool Lock and Taunton Gas Works. No unusual operations had taken place in the establishments abutting the river and no evidence of pollution could be found. A dead pike was examined but showed no trace of poisoning and it was assumed that the de-oxygenation of the river brought about by the low flow and high atmospheric temperature had killed the fish.

An investigation was made into the foul condition of Mount Stream at the Somerset County Cricket Ground. It was found that water from sheepskin soaking pits at a tannery had been discharged from the works premises into a culvert which led into the stream. Negotiations were made to discharge the effluent from the pits into the public sewer and the work was put in hand.

RIVER YEO—YEOVIL BOROUGH COUNCIL SEWAGE WORKS. The Sewage Works of this Council have been grossly overloaded for many years. The result has been that large volumes of untreated domestic sewage and trade waste have been discharged into the river in which the flow of dilution water is not only small in volume but sluggish. Repeated representations have been made to the Borough Council for them to carry out satisfactory treatment to the whole of the sewage. Considerable delays have occurred but it is now learned that the outlined scheme submitted by the Council was accepted in principle by the Ministry of Health in September. On this authority the Council have given instructions to the Consulting Engineers to prepare detailed proposals for submission to the Ministry.

Dead fish were observed in the river at Chudleigh's Flour Mills in July and an investigation was made. Difficulty was experienced in that there was a delay of several days between the date the fish were observed to be dying and the receipt of the complaint by my Department. The dead fish had first been observed several hours after a rainstorm which was the first for six weeks. The condition of the surface water sewer as a result of the prolonged drought may have been a contributory factor but no evidence of pollution could be ascertained.

CANNINGTON BROOK. Early in the year the Bridgwater Rural District Council informed the County Council that whey was being discharged into the Brook from a dairy. The seriousness of this action was pointed out to the Manager who promptly arranged to block the drains near the whey tank which were connected to the Brook. There has since been no recurrence of whey discharge.

RIVER PARRETT. Complaints were received in June that a heavy loss of fish life had occurred in the vicinity of Thorney Bridge and Thorney Flour Mill. No evidence could be found to suggest that there had been pollution of the river water. At about this time the hatches at Thorney Mill had been drawn to permit repair of the river bank wall at Kingsbury Episcopi. The small quantity of water in the river above and below the mill, coupled with the prolonged high atmospheric tem-

perature, seemed the obvious cause of the loss of fish life. Requests were made that should any fish be seen in difficulty the hatches would be opened to permit a greater volume of water to pass down the river.

In July information was received that lime water was being discharged into the King Sedgemoor Drain at Dunball from a Lime Hydration Plant. It was found that there was a considerable deposit of lime on the bed of the river at the point of discharge. It was considered that whilst this lime deposit would not necessarily be harmful to fish life the cumulative effect over a number of years would not be beneficial to the river. The firm concerned constructed a settling tank which considerably reduced the solids in suspension and the lime water being discharged should have no harmful effects.

**RIVER LAND YEO.** In June the Somerset Rivers Catchment Board complained that oil was being discharged into the river at Clevedon. Investigation showed that an engineering firm, whose premises adjoin the river, had an accumulation of workshop refuse, which included oily metal turnings and rags, near the river bank and oil was seeping from the dump into the river. Sink waste also from the Works Canteen was discharging directly into the river. Arrangements were made to have the dump removed and later in the year the drain outlet from the canteen was connected to the sewer. No further complaints were received and subsequent visits showed the nuisance to be satisfactorily abated.

**GENERAL COMMENTS.** Details of the work carried out by my Department are given in the Appendix. The figures only allude to the five main rivers and do not include the many inspections made of other streams in the County. This summary shows that long continued and strenuous efforts have been made, very frequently without any real success, to improve the position.

It is correct to say that, in general, the state of these rivers in the County is worse now than it was ten years ago, and that, as far as we can judge, the conditions show a steady deterioration.

Such circumstances and conditions are grossly unfair to the agricultural interests in the lands abutting these rivers and watered by them. Similarly, they are detrimental to the general amenities of the associated countryside.

In my view, the effect on the milk supply under these conditions is that cattle simply refuse to drink such polluted water, and that, as a result of inadequate drinking supplies, the cattle must suffer in their general health and in their physiological reactions. Such circumstances must have a deleterious effect on the milk yield.

Finally the continuing and the increasing degree of pollution, with ineffective and tediously slow methods to control it, has given rise not only to serious practical difficulties in agriculture but also to much proper irritation and indignation.

It is evident that due consideration must be given to the various interests involved in these matters. It is equally evident that such circumstances should not be allowed to drag on indefinitely.

In my opinion it is desirable that first priority should be given by the Ministry to any scheme or works required in Somerset to remedy conditions of gross pollution.

Consequent to the River Boards Act, 1948, River Boards have been formed which in the ensuing year will take over the County Council's functions regarding river pollution. The two main Boards established whose areas will cover the greater part of the County are the Somerset River Board and the Bristol Avon River Board.

## APPENDIX.

*Action taken regarding Conditions in the Five Rivers.*

## RIVER AXE (Wookey).

Visits paid from September, 1940	...	...	45
Samples taken from February, 1946	...	...	36
Letters sent	...	...	31
Interviews	...	...	30

## RIVER BRUE (Glastonbury Area).

Visits paid from June, 1940	...	...	122
Samples taken from May, 1940	...	...	57
Letters sent	...	...	130
Interviews	...	...	67

## RIVER FROME (Frome Area).

Visits paid from September, 1942	...	...	45
Samples taken from September, 1945	...	...	36
Letters sent	...	...	31
Interviews	...	...	30

## RIVER TONE (Taunton and Wellington Area).

Visits paid from December, 1942	...	...	74
Samples taken from January, 1944	...	...	63
Letters sent	...	...	54
Interviews	...	...	41

## RIVER YEO (Yeovil Area).

Visits paid from September, 1944	...	...	28
Samples taken from August, 1944	...	...	43
Letters sent	...	...	32
Interviews	...	...	7

## HOUSING.

The insufficiency of houses to meet the growing demands is still giving Housing Authorities much concern. Notwithstanding more houses being built and very few being demolished the list of applicants still remains a formidable one. During the year Local Authorities erected 1,945 houses, a decrease of 33 on the previous year, and those built by private enterprise numbered 350, exceeding the 1948 figure by 168. Conversions of dwellings into flats and temporary tenements provided 371 new homes, making a grand total of 2,666, an increase of 40 over the previous year.

Houses in course of erection by Local Authorities and private enterprise number 1,708.

Applicants for houses in the County total 20,881.

New houses erected and in course of erection, both temporary and permanent, and the number of conversions that have been carried out are shown in Table XVII. The number of houses required to replace those unfit, to abate overcrowding and other conditions are given in Table XVIII together with the number of applicants for houses.

The task of Local Authorities is, to say the least, formidable as apart from those on the waiting lists approximately 11,000 houses are required to replace those unfit and to abate overcrowding, etc. As further houses are inspected, to complete the survey in being in the rural districts, this figure will be added to and if new homes are provided at the rate shown in 1949 it will take at least 12 years to meet the requirements of new applicants, to rehouse those living in unfit premises and to abate overcrowding. It will be observed in Table XVIII that 662 houses licensed to be occupied which have been condemned as totally unfit. Many of the conditions under which these people are living are very bad indeed.

The Housing Act, 1949, was placed on the statute book and came into being on the 30th July, 1949. Briefly, the Act provides for the following:—Removal of references to the working classes from certain provisions of the Housing Act, 1936; the quashing of certain Demolition Orders; the preservation of certain houses unfit for human habitation; the power of Local Authorities to make advances for increasing housing accommodation; the power of Local Authorities to provide laundry facilities and also to sell furniture to persons housed by, or by arrangement with, them; the acquisition of land for the improvement of housing accommodation; the revival of the power to make byelaws as to the number of persons permitted to occupy working class houses and other items generally. Part II of the Act deals with financial assistance towards housing accommodation and provides for exchequer contributions for improvement of housing accommodation by Local Authorities and Development Corporations. It provides for grants by Local Authorities for the improvement of housing accommodation by persons other than the Local Authority and reintroduces the principles contained in the Housing (Rural Workers) Acts which lapsed in 1945. The Local Authorities for the purposes of this part of the Act are Borough, Urban District or Rural District Councils. The grants made are equal to a half of the cost of the works with a limit of £300 for the reconditioning of one dwelling. The cost of the works must amount to not less than £100 and not exceed £600 except in certain circumstances. Standards are prescribed to which the houses must conform when the works have been completed. The Ministry makes a grant equal to three-quarters of the loan charges to the Local Authorities concerned. The rent chargeable to the tenant must be that paid prior to the commencement of the reconditioning works plus 6% on the cost borne by the owner.

The rest of the Act deals with exchequer contributions for new houses and hostels and grants for building experiments and also for miscellaneous amendments to the law.

### Rural Housing Survey.

The progress made during 1949 is set out in Table XIX. The following figures illustrate the progress made towards the completion of the Survey by each Local Authority during 1949. The relative percentage figure for 1948 is also given:—

			1948	1949				1948	1949
			%	%				%	%
Wells	...	...	100	100	Wellington	...	...	47.7	61.7
Taunton	...	...	78.1	100	Wincanton	...	...	50.4	61.6
Dulverton	...	...	74.4	100	Axbridge	...	...	48.3	55.9
Williton	...	...	66.1	98.6	Bathavon	...	...	53.2	54.5
Frome	...	...	96.4	96.4	Shepton Mallet	...	...	46.8	47.5
Yeovil	...	...	85.7	85.7	Langport	...	...	40.7	40.7
Long Ashton	...	...	83.7	83.7	Clutton	...	...	39.2	39.2
Bridgwater	...	...	60.5	70.4	Chard	...	...	11.1	13.8

It is difficult to assess the merit value of these figures in view of the fact that some Authorities are carrying out a comprehensive inspection and taking each house in turn whilst others are making a more cursory survey in order to sort out the worst houses first and leave those that may fall into the minor defects category until last. The total number of houses inspected during 1949 is 29,615, 2,712 having been surveyed during the year. It will be observed from column 8 of the table that 4,867 houses or 16.4% were found satisfactory in all respects. Those found unfit (column 20) number 7,345 or 24.8%.

If those houses unfit, namely 7,345 are added to those requiring extensive repair or structural alterations, viz. 10,919 (column 14) a total of 18,264 is obtained. This represents 61.7% of the total houses inspected. Those considered suitable for grant amount to 2,311 (column 16), equalling 7.8% of the total number surveyed. Although grants are now made under the Housing Act, 1949, the old heading has been used to keep the Survey in line with the Hobhouse Report.

Of the 43,923 houses coming within the Survey, 16,308 remain to be examined and unless the inspection can be stepped up appreciably it will take over six years at the present rate to complete the task which will practically make the information obtained valueless as there will have been a lapse of approximately eleven years between the start and completion of the Survey. I would emphasise the need for the speeding up of the Survey as it is impossible for Local Authorities to assess their commitments with regard to replacements and reconditioning unless they have an overall picture of housing in their respective areas. The fact that houses requiring structural alteration or are unfit amount to 63% of the total inspected is a matter of grave anxiety, and whilst it is essential to push on with new houses one cannot lay too much stress on the fact that houses now in the minor defects class will fall into the next class where major works are required unless something is done to arrest deterioration and decay. People living in these houses are justified in asking "Why should I not have the same amenities as those provided for the tenants of new houses."

The payment of Development Charges for the improvement of dwellings by adding further accommodation is likely to be a deterrent and it is hoped that this will be considered by the responsible Authorities as it reacts unfavourably on the work of Public Health Officials in their endeavours to provide better living conditions. The subsidy offered by the Housing Act, 1949 will help to bridge the gap between the economic rent and the rent paying capacity of the tenant and it is hoped that many owners will avail themselves of this opportunity to improve their dwellings. The attitude to elderly owners and owner occupiers who own property of a sub-standard type considered suitable for reconditioning should be sympathetic and any loans that can be made available by the Local Authority to assist them apart from the grant should be divulged and thus ease the worry which many with only slender means are bound to experience. Low rents and high cost of repairs have undoubtedly been retarding factors in works of improvement. With this new legislation it is hoped that the position will be somewhat eased.

TABLE XVII.

Local Authority.	Houses erected by		Houses in course of erection by		Conversion to Flats, etc		Temporary such as Army Huts	
	L.A.	P.E.	L.A.	P.E.	L.A.	P.E.	L.A.	P.E.
<b>URBAN AREAS.</b>								
Bridgwater ...	87	12	100	8	4	20	45	—
Burnham-on-Sea	2	14	4	4	—	10	—	—
Chard ...	22	2	12	2	1	—	—	—
Clevedon ...	24	9	27	1	—	16	—	—
Crewkerne ...	6	3	3	—	—	1	—	—
Frome ...	13	9	102	10	—	6	—	—
Glastonbury ...	21	1	22	4	—	3	—	—
Ilminster ...	8	2	6	3	—	1	—	—
Keynsham ...	81	11	51	8	—	10	—	—
Minehead ...	33	2	19	4	—	1	—	—
Norton Radstock	90	14	—	6	—	2	—	—
Portishead ...	25	3	22	6	—	—	—	—
Shepton Mallet	29	2	16 <sup>T</sup> 7	1	—	1	—	—
Street ...	33	—	25	4	—	—	58	—
Taunton ...	136	7	168	20	—	7	—	—
Watchet ...	8	1	12	1	—	—	—	—
Wellington ...	50	1	14	2	—	5	—	—
Wells ...	6	3	30	4	—	2	—	—
Weston-s.-Mare	228	36	30	10	—	18	—	—
Yeovil ...	93	19	96	4	—	3	—	—
Totals ...	995	151	16 <sup>T</sup> 750	102	5	106	103	—
<b>RURAL AREAS.</b>								
Axbridge ...	115	16	50	7	—	—	—	—
Bathavon ...	152	19	136	25	—	6 <sup>T</sup> 13	12	—
Bridgwater ...	48	15	71	9	—	—	—	—
Chard ...	46	9	40	11	—	—	8	—
Clutton ...	60	13	22	16	—	—	—	—
Dulverton ...	12	2	8	—	—	1	—	—
Frome ...	26	9	24	2	—	—	—	—
Langport ...	33	14	37	2	—	2 <sup>T</sup> 3	—	1
Long Ashton ...	100	21	62	16	—	13	49	—
Shepton Mallet	29	14	38	7	—	—	—	1
Taunton ...	86	8	32	12	—	14	10	—
Wellington ...	12	12	—	5	—	—	—	—
Wells ...	62	11	24	7	—	4 <sup>T</sup> —	—	—
Williton ...	34	2	36	5	—	3	—	—
Wincanton ...	69	13	54	10	—	5	4	—
Yeovil ...	66	1 <sup>T</sup> 20	62	2 <sup>T</sup> 8	—	8	—	—
Totals ...	950	1 <sup>T</sup> 198	696	2 <sup>T</sup> 142	—	12 <sup>T</sup> 60	83	2
Combined Totals ...	1,945	1 <sup>T</sup> 349	16 <sup>T</sup> 1,446	2 <sup>T</sup> 244	5	12 <sup>T</sup> 166	186	2

"T" means Temporary. The remaining houses are of Permanent construction.

TABLE XVIII

Local Authority	Houses required			Houses occupied but condemned as totally unfit	Applications for Houses	Grants made under Housing Act, 1949
	To replace those unfit	To abate over-crowding	For other unsatisfactory conditions			
<b>Urban Areas.</b>						
Bridgwater ... ..	213	47	—	7	1,322	Nil.
Burnham-on-Sea ...	—	—	190	—	377	Nil.
Chard ... ..	83	30	127	27	271	Nil.
Clevedon ... ..	20	10	223	—	283	Nil.
Crewkerne ... ..	13	16	53	13	141	Nil.
Frome ... ..	500	27	200	17	420	Nil.
Glastonbury ...	60	3	84	15	217	Nil.
Ilminster ... ..	150	20	20	56	205	Nil.
Keynsham ... ..	200	58	150	1	588	Nil.
Minehead ... ..	—Unknown—	—	228	—	267	Nil.
Norton Radstock ...	50	80	280	9	587	Nil.
Portishead ... ..	—	60	—	—	166	Nil.
Shepton Mallet ...	—	Unknown	—	—	300	Nil.
Street ... ..	—	—	40	—	220	Nil.
Taunton ... ..	180	—	—	176	2,035	Nil.
Watchet ... ..	25	14	20	—	70	Nil.
Wellington ... ..	184	12	215	—	364	Nil.
Wells ... ..	150	—	141	6	296	Nil.
Weston-super-Mare ...	204	9	Unknown	4	2,063	Nil.
Yeovil ... ..	20	50	720	2	1,169	Nil.
<b>Rural Areas.</b>						
Axbridge ... ..	219	9	504	103	729	Nil.
Bathavon ... ..	162	82	342	9	1,385	Nil.
Bridgwater ... ..	694	10	—	13	730	Nil.
Chard ... ..	111	—385—	—	29	496	Nil.
Clutton ... ..	—	374	—	—	920	Nil.
Dulverton ... ..	32	8	10	6	85	Nil.
Frome ... ..	500	—	—	6	319	Nil.
Langport ... ..	314	9	199	—	514	Nil.
Long Ashton ... ..	251	69	83	32	979	Nil.
Shepton Mallet ...	276	8	—	27	301	Nil.
Taunton ... ..	300	—	240	—	632	Nil.
Wellington ... ..	381	6	50	46	180	Nil.
Wells ... ..	150	10	60	4	268	Nil.
Williton ... ..	427	15	236	3	472	Nil.
Wincanton ... ..	622	15	300	39	607	Nil.
Yeovil ... ..	414	79	297	12	903	Nil.

TABLE XIX

**PROGRESSIVE HOUSING STATEMENT showing the progress of the RURAL HOUSING SURVEY  
to 31st December, 1949**

## CATEGORIES:—

I. Satisfactory in all respects.

II. Minor defects.

III. Repairs or structural alterations.

IV. Suitable for Housing (Rural Workers) Acts.

IVa. Suitable for acquisition.

V. Unfit.

Local Authority	Number of Houses in District.				Inspected.		C A T E G O R I E S.														
	Over £16 R.V. excluding Council houses.	No. of Council houses.	No. of Private houses built since 1930.	£16 R.V. or under excluding Cl. houses, also those built Privately since 1930.	% £16 R.V. or under of total houses in District.	Number.	% on Col. (4).	I.			II.		III.		IV.		IVa.		V.		
								Standards.		Number.	% on Col. (6).	Number.	% on Col. (6).	Number.	% on Col. (6).	Number.	% on Col. (6).	Number.	% on Col. (6).		
								District.	County.												
																				Number.	% on Col. (6).
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	
Axbridge	1275	578	920	4055	59.3	2266	225	9.9	104	4.6	371	16.4	1440	63.5	150	6.6	—	—	230	10.2	
Bathavon	1683	186	950	3274	53.7	1785	69	3.9	11	0.6	320	17.9	1237	69.3	—	—	8	0.4	159	8.9	
Bridgwater	855	437	657	4359	69.1	3068	126	4.1	81	2.6	462	15.1	1722	56.1	264	8.6	—	—	758	24.7	
Chard	285	254	157	2721	79.6	377	19	5.0	10	2.6	55	14.6	192	50.9	—	—	—	—	111	29.4	
Clutton	434	614	407	3378	69.8	1325	—	—	—	—	—	—	296	22.3	27	2.3	—	—	1029	77.7	
Dulverton	204	92	86	1068	73.6	1068	346	32.4	—	—	264	24.7	426	39.9	5	0.5	—	—	32	2.9	
Frome	333	182	—	2509	82.9	2419	327	13.5	149	6.2	536	22.1	749	30.9	362	14.9	—	—	807	33.3	
Langport*	452	407	190	2701	72.0	1100	11	1.0	7	0.6	47	4.3	378	34.4	317	28.9	—	—	664	60.3	
Long Ashton	2458	357	563	2776	45.1	2323	629	27.0	82	3.5	386	16.7	998	43.0	65	2.8	509	21.9	310	13.3	
Shepton Mallet..	480	210	207	2171	70.8	1032	85	8.2	5	0.5	136	13.2	532	51.5	86	8.3	1	0.1	279	27.0	
Taunton	557	426	265	3246	72.2	3246	458	14.1	139	4.3	2072	63.8	366	11.3	—	—	23	0.7	350	10.8	
Wellington	313	246	—	1584	73.9	978	146	14.9	—	—	107	10.9	344	35.2	367	37.5	—	—	381	38.9	
Wells	459	111	207	1725	68.9	1725	564	32.7	59	3.4	206	11.9	534	30.9	231	13.4	107	6.2	421	24.4	
Williton	768	311	397	2492	62.8	2457	733	29.8	498	20.3	622	25.3	675	27.5	—	—	—	—	427	17.4	
Wincanton	1449	856	216	2409	48.8	1484	53	3.6	—	—	211	14.2	184	12.4	282	19.0	27	1.8	1036	69.8	
Yeovil	698	931	618	3455	60.6	2962	1076	36.3	685	23.1	689	23.3	846	28.6	155	5.2	—	—	351	11.8	
Totals	12703	6198	5840	43923	63.9	29615	4867	16.4	1830	6.2	6484	21.9	10919	36.9	2311	7.8	675	2.3	7345	24.8	

\* Langport Survey covers houses of £14 R.V. and under only.

## **SUPERVISION OVER THE FOOD SUPPLY.**

### **A. Slaughter-houses and Meat Supervision.**

The Ministry of Food still control those slaughter-houses and abattoirs in the County where cattle, sheep and pigs are slaughtered for human consumption under the Livestock (Restriction on Slaughtering) Order, 1940. Inspection of the meat is carried out by the district Sanitary Inspectors.

Columnus (1) and (2) of the table below shew the position before slaughter-houses were taken over.

Local Authority	Slaughter-houses			Knackers Yards
	Licensed	Registered	Where Horses are Slaughtered for Human Consumption	
	(1)	(2)	(3)	(4)
<b>Urban Areas.</b>				
Bridgwater ... ..	12	—	—	—
Burnham-on-Sea ... ..	7	—	—	1
Chard ... ..	—	—	—	—
Clevedon ... ..	—	—	—	—
Crewkerne ... ..	1	—	—	—
Frome ... ..	—	—	—	—
Glastonbury ... ..	1	4	—	—
Ilminster ... ..	2	—	—	—
Keynsham ... ..	3	—	—	—
Minehead ... ..	—	—	—	—
Norton Radstock ... ..	5	—	—	—
Portishead ... ..	2	2	—	—
Shepton Mallet ... ..	4	—	—	—
Street ... ..	—	4	—	—
Taunton ... ..	1	—	—	—
Watchet ... ..	3	—	—	—
Wellington ... ..	—	9	—	—
Wells ... ..	4	5	—	—
Weston-super-Mare ... ..	1	—	—	—
Yeovil ... ..	3	—	—	—
Totals ...	49	24	—	1
<b>Rural Areas.</b>				
Axbridge ... ..	—	—	—	—
Bathavon ... ..	—	1	—	1
Bridgwater ... ..	4	11	—	1
Chard ... ..	11	5	1	—
Clutton ... ..	7	14	—	—
Dulverton ... ..	—	—	—	—
Frome ... ..	—	—	—	1
Langport ... ..	4	—	1	1
Long Ashton ... ..	2	9	—	—
Shepton Mallet ... ..	3	—	—	1
Taunton ... ..	26	—	—	1
Wellington ... ..	3	—	—	—
Wells ... ..	8	3	—	1
Williton ... ..	5	—	—	—
Wincanton ... ..	2	14	—	3
Yeovil ... ..	17	—	1	1
Totals ...	92	57	3	11
Combined Totals ...	141	81	3	12

### B. Tuberculosis in Calves.

An arrangement is in being whereby calves born inside the County but slaughtered outside found to be affected by tuberculosis are notified to the department. Such information when received is passed on to the Divisional Inspector of the Ministry of Agriculture and Fisheries with a view to investigations being carried out. This collaboration is proving most valuable in helping to diminish the spread of the disease as attention is primarily directed to the mother of the affected calf as the possible cause of infection.

The following is a summary of action taken during the year with comparative figures covering the last five years:—

			1949.	1948.	1947.	1946.	1945.
Notifications received	...	...	55	51	38	58	24
Calves involved	...	...	55	51	36	62	31
Bulls involved	...	...	—	—	2	1	1
Results of investigations:—							
Number of mothers found healthy			13	3	9	12	12
Number of bulls found healthy	...		—	—	2	1	—
Number of bulls died	...	...	—	1	1	—	1
Number of cows and bulls slaughtered:—							
Under Tuberculosis Order	...		40	38	22	44	16
Number unable to trace	...		2	9	4	6	3

### C. Cysticercus Bovis.

During the year a number of home-bred animals slaughtered for human consumption have, on examination, been found to be infested with cysticercus bovis. A number of cases have been reported from a slaughterhouse in the County.

Altogether during the year 86 cases were reported where animals affected had been grazed in the County. The investigations made revealed the following:—

Animals whose owners were dealers	...	...	...	...	...	...	22
Animals having access to sewage contaminated water	...	...	...	...	...	...	13
Where sewage and cesspool drainage emptied on land	...	...	...	...	...	...	4
Land subject to flooding by sewage contaminated water	...	...	...	...	...	...	1
Faulty drainage system contaminating pasture and/or drinking water	...	...	...	...	...	...	3
No evidence of source of infection	...	...	...	...	...	...	38
Investigation incomplete	...	...	...	...	...	...	4
Insufficient address to be able to trace	...	...	...	...	...	...	1
							86

In trying to trace the grazing ground of animals found to be infested the Dealer - Owner animal has been by far the most troublesome problem.

In a number of cases where animals have been bred and grazed on the same farm the owner has been perfectly satisfied that no sewage or cesspool contents have ever been distributed on the land. The investigation into about 33 per cent. of the cases proved negative.

Summarising the results leads one to the following conclusions:—

1. The major spread is by streams and watering places to which the cattle have access.
2. That the watercourse may have been infected many miles upstream.
3. That owing to the long life of the ova and the tapeworm in its early stages, the spread can be considerable and may go on for years.
4. Owing to the loss of infested meat as food and to limit the spread of the infection, any cases of persons found suffering from tapeworm should be reported immediately to the Local Authority to enable appropriate steps to be taken.

#### D. Milk Supply.

The following Acts came into operation on October 1st:—

Milk (Special Designations) Act, 1949.  
(Ministry of Food).

The Milk (Special Designation) (Raw Milk) Regulations, 1949.  
(Ministries of Health, Agriculture and Food).

The Milk (Special Designation) (Pasteurised and Sterilised Milk) Regulations, 1949.  
(Ministries of Health and Food).

The Milk and Dairies Regulations, 1949.  
(Ministries of Health, Agriculture and Food).

The contents of these enactments are briefly as follows:—

##### *Milk (Special Designations) Act, 1949.*

The Minister may at any time order that an area be "specified". When such order comes into operation, the use of a special designation shall be obligatory for the purpose of all sales of milk by retail for human consumption (other than catering sales) where the place of sale is within the limits of such area.

In certain circumstances the Minister has the power to consent to sales without the special designation.

After the 30th September, 1954, the special designation "Accredited" will be excluded from the designations.

The Minister has the power to provide facilities for the treatment of milk.

The County Council, as Food and Drugs Authority, will be responsible for carrying into effect and enforcing the provisions regarding the use of the special designations.

##### *The Milk (Special Designation) (Raw Milk) Regulations, 1949.*

The special designations which can be used, namely "Tuberculin Tested" and "Accredited", are the same as those contained in the Milk (Special Designations) Regulations, 1936-46.

All producers' licences, whether selling milk by wholesale, retail or both, are granted by the Ministry of Agriculture and Fisheries. Dealers' licences are to be issued by district authorities as in the past.

Dealers' licences are for a period of one year from the 1st January.

Licences to use the designation "Tuberculin Tested" are to be for a period of five years providing the herd from which the milk is produced is "Attested".

Where the milk is from a herd not "Attested", applications made for "Tuberculin Tested" licences are limited to three years providing such application is made before the 1st October, 1951. They are not renewable thereafter.

No "Tuberculin Tested" licences will be granted after October 1st, 1954, unless the herd is "Attested".

No consideration will be given to applications for "Accredited" licences after 30th September, 1952, and all existing licences will expire after 30th September, 1954.

*The Milk (Special Designation) (Pasteurised and Sterilised Milk) Regulations, 1949.*

Food and Drugs Authorities, in Somerset the County Council, are now responsible for licensing pasteurising and sterilising plants in place of District Authorities. Dealers' licences (where milk is not pasteurised or sterilised on the premises) are issued by District Councils as hitherto; they also grant supplementary licences to dealers who wish to sell milk in the area but whose premises are outside the district of the local authority.

The licences for both pasteurising and sterilising plants are for one year, from the 1st January. Dealers' licences are issued for the same period.

The authorised designations are "Pasteurised" and "Sterilised". Where "Tuberculin Tested" milk only is processed the additional wording "Tuberculin Tested milk" is permitted.

Milk may be pasteurised in two ways: (a) by the holder method which means that the milk must be held between the temperature limits of 145° F. to 150°, (b) by the H.T.S.T. (high temperature short time) method when the milk must be held at not less than 161° F. for at least fifteen seconds.

With regard to the time-temperature combination, the only change from the old Regulations is that in the H.T.S.T. method the temperature has been reduced from 162° F. to 161° F.

In a note with the Regulations indicating their general purport, from a future date to be appointed by the Minister of Food, a flow diversion device must be fitted to pasteurising plant in which the milk is heated to a temperature higher than 150° F. and bottles or other containers must be securely fastened with an overlapping cap. From 1st October, 1950, pasteurised milk may only be sold in bottles or other containers which must be filled on the premises of a person holding a licence under these regulations. From 1st October, 1954, the bottles or other containers must be filled at the pasteurising premises.

Sterilised milk is milk which has been filtered, homogenised and heated to and maintained at a temperature of not less than 212° F. for such period as to ensure that it will comply with the prescribed turbidity test. Sterilised is a new designation.

*The Milk and Dairies Regulations, 1949.*

These Regulations re-enact, with amendments, the Milk and Dairies Regulations, 1926 to 1943.

The Ministry of Agriculture and Fisheries are now responsible for the registration of all dairy farms and dairy farmers. The Minister can refuse registration or cancel a registration. Provision is made for the reference of objections to a tribunal and for the making of representations to the Minister.

Whilst the Regulations contain provisions relating to the health of cattle; buildings and water supplies; production, treatment, handling and storage of milk; infection of milk; protection of milk against contamination or infection; cleansing and storage of utensils; conveyance and distribution; there is no prescribed test for undesignated milk, neither is there a standard of cleanliness for churns and other milk containers.

October 1st saw the transfer of functions from the County Council to the Ministry of Agriculture and Fisheries respecting the licensing and supervision of all designated milk producers. This took place consequent upon the Milk (Special Designation) (Raw Milk) Regulations, 1949, coming into operation. At the same time, as a result of the new Milk and Dairies Regulations, 1949, the Ministry took over from District Authorities the registration of all undesignated milk producers, also producer-retailers. These changes conform to government policy as outlined in the White Paper entitled "Measures to improve the Quality of the Nation's Milk Supply" and circulated in July, 1943.

#### Designated Milk (raw).

The County Council became responsible for those producing designated milk following the introduction of the Milk (Special Designations) Regulations, 1936. The table below shows the steady increase of such producers year by year.

Year (at end of).	T.T.	Accredited.	Total.
1936	126	285	411
1937	159	506	665
1938	264	623	887
1939	320	800	1,120
1940	305	849	1,154
1941	275	817	1,092
1942	297	871	1,168
1943	357	840	1,197
1944	502	705	1,207
1945	596	758	1,354
1946	739	757	1,496
1947	901	717	1,618
1948	1,038	681	1,719
1949	1,278	621	1,899 (to 30th Sept.)

Whilst two counties, Cheshire and Staffordshire, had a greater total of designated producers, Somerset claimed the premier position regarding the greatest number of "Tuberculin Tested" licensees, being the only county to reach and exceed four figures. Although Somerset is one of the larger milk-production counties, it is a noteworthy achievement and complimentary to the strenuous efforts put in by my staff and those recently transferred to the Ministry of Agriculture and Fisheries to raise the standard quality of milk. Considerable work has been done in propaganda among the farmers, and, with the producers adopting a progressive outlook, coupled with the co-operation of the Veterinary Service, the County can justifiably feel proud of the success attained. Having reached the progressive and satisfactory stage when over 26.7 per cent. of the total registered milk producers held designated licences and over 18.7 per cent.

"Tuberculin Tested", it is to be hoped that the good work will be maintained. My department has given what assistance it can to keep the new administrative wheels turning and will be prepared to continue giving any advice or help should it be desired.

Of the four Sampling Officers engaged, two left to carry on similar work under the Ministry of Agriculture and Fisheries shortly after the transfer of functions took place.

Samples taken during the year up to the 30th September and the test results are as follows:—

					Samples taken.	No. satisfactory.	% unsatisfactory.
T.T.	...	...	...	...	5,107	3,571	30.0
Accredited	...	...	...	...	2,752	1,840	33.1
					<hr/>	<hr/>	
					7,859	5,411	31.1
					<hr/>	<hr/>	
Farm Bottled—							
T.T.	...	...	...	}	470	292	37.7
Accredited	...	...	...				

The above figures include pre-licence, reinstatement and advisory samples as well as those of a routine nature.

The percentage of failures is somewhat higher than those of previous years due mainly to two reasons—(I) The prolonged hot summer; (II) Sample failures in the last three months of the year are considerably fewer than those in the preceding three. As the duties were transferred on September 30th, it was not possible to show these figures and use them to offset the higher percentage of failures experienced in July, August and September when 61.2 per cent. of "Tuberculin Tested" and 68.9 per cent. of "Accredited" were found unsatisfactory.

Table XX shows the details respecting all registered producers, dairymen and dairy premises, before and after the Transfer of Functions on the 1st October, 1949.

TABLE XX.

This table is divided into two parts, Part I showing the position as at 30th September, 1949 and Part II as at 31st December, 1949.

Local Authority.	PART I			PART II		
	Total Registered Dairy Farms at 30th September 1949 (a)	Retailers (b)	Producer Retailers included in (b) (c)	Registered Distributors (a)	Registered Dairy Premises (b)	Supplementary Licences (c)
<b>Urban Areas.</b>						
Bridgwater ...	15	27	6	26	14	6
Burnham ...	21	12	4	6	4	3
Chard ...	7	—	—	4	1	—
Clevedon ...	28	16	8	9	9	3
Crewkerne ...	15	5	1	4	15	—
Frome ...	14	10	5	4	7	2
Glastonbury ...	46	9	5	9	6	2
Ilminster ...	10	3	1	3	8	—
Keynsham ...	25	3	—	7	3	4
Minehead ...	5	5	2	5	5	—
Norton Radstock	38	18	16	8	8	3
Portishead ...	7	6	—	4	8	1
Shepton Mallet..	24	7	—	6	6	3
Street ...	20	12	9	11	22	1
Taunton ...	4	21	1	22	15	2
Watchet ...	4	7	2	3	3	1
Wellington ...	16	6	5	11	16	—
Wells ...	7	6	1	7	3	2
Weston-s.-Mare.	26	54	8	33	21	5
Yeovil ...	13	15	4	—	25	1
Totals ...	345	242	78	182	199	39
<b>Rural Areas.</b>						
Axbridge ...	934	89	74	20	7	5
Bathavon ...	226	78	55	21	14	6
Bridgwater ...	845	144	125	19	19	1
Chard ...	547	60	58	1	1	—
Clutton ...	417	91	87	6	4	—
Dulverton ...	247	106	106	2	—	—
Frome ...	395	101	5	14	5	—
Langport ...	496	74	72	1	—	—
Long Ashton ...	386	116	92	17	8	6
Shepton Mallet..	416	40	34	6	2	4
Taunton ...	564	7	3	8	7	—
Wellington ...	250	90	87	3	2	1
Wells ...	433	118	105	13	6	2
Williton ...	353	137	133	5	2	1
Wincanton ...	594	59	52	—	—	6
Yeovil ...	459	83	68	16	4	3
Totals ...	7,562	1,393	1,156	152	81	35
Combined Totals ...	7,907	1,635	1,234	334	280	74

The following details shew the position at the end of the year.

Registered and Licensed Producers. (Estimated total 7,500).

Number of Licensed "Tuberculin Tested" producers	...	1,405	=	18.7%
" " " " "Accredited" producers	...	599	=	8.0%
Estimated number of Undesignated producers	...	5,496	=	73.3%

Registered and Licensed Producer-Retailers.

Total number of producer-retailers	...	1,450		
Number of producer-retailers of "Tuberculin Tested" milk	...	250	=	17.3%
" " " " "Accredited" Milk	...	125	=	8.6%
" " " " Undesignated Milk	...	1,075	=	74.1%

Bottling Licences.

"Tuberculin Tested"	...	69
"Accredited"	...	9
		—
		78
		—

With regard to "Registered and Licensed Producer-Retailers," it seems to be doubtful whether sufficient steps have been taken to cover the sampling of such traders, particularly those who sell undesignated milk. Dealers who are not producers are covered by licences issued by local authorities under the Milk (Special Designation) (Raw Milk) Regulations, 1949, but producer-retailers are registered direct by the Ministry and may sell their milk to the public from premises where it is produced which are unknown to the local authority.

### Pasteurised and Sterilised Milk.

Twenty licensed pasteurising plants were taken over from the County District Authorities on October 1st. There is only one establishment where milk is sterilised and as this is a new designation a licence was issued to cover this plant.

Generally speaking, premises and plant have been found satisfactory. The floor space of several of the premises is becoming congested owing to increasing trade and the installation of new bottle washing and processing machinery.

Apart from the fitting of Indicating and Recording thermometers to register the heat to which the milk has been raised and maintained, such thermometers are now required at the cold milk outlet—(the milk after heat treatment has now to be cooled immediately to 50°F. or below). These thermometers are normally fitted to H.T.S.T. plants, or can be fitted, to obtain representative readings. On capillary or open type coolers the answer to the problem is a little more difficult. However, a sketch shewing a suggested method has been circulated to those confronted with the problem, which, if adopted, will overcome the difficulty. There is some delay in delivery of thermometers but it is hoped that orders will be met and the instruments fitted in the ensuing nine months.

There are quite a number of pasteurising plants in operation which vary in construction and in processing methods. The supervision of such apparatus is highly technical and calls for a thorough knowledge of all the working parts.

Many of the plants made to-day are so mechanically operated that they are practically fool-proof. Whilst the weaknesses of the human element have been eliminated to a great extent on such plants, there remains the danger of the milk being contaminated after processing by operatives through either carelessness or lack of knowledge of how the addition of a minute quantity of raw milk may upset the phosphatase test and fail a sample of milk that has been perfectly pasteurised. It is proposed to give talks to the staff at each licensed establishment on milk matters and personal hygiene in the hope that they will have a beneficial effect.

At the request of the Ministry of Food bi-monthly samples were taken during the year from those dairies authorised to heat treat milk. As these have to comply with the same tests as pasteurised, the figures appended include such samples.

Samples taken.	Satisfactory.	% Unsatisfactory.
867	814	6.1

Of the 53 unsatisfactory samples, 26 failed the Phosphatase test, 25 the Methylene Blue test and 2 failed both tests.

### Animal Health.

There are approximately 309,500 cattle in the County of which roughly 80,000 or one quarter are either "Attested," "Supervised" or "Tuberculin Tested." To become "Attested" a herd must pass three consecutive clean tests, in other words no animal must react at each testing. "Supervised" means herds which have passed two clean tests and are awaiting the third for Attestation. "Tuberculin Tested" refers to those animals which have passed the tuberculin test and comprise a dairy herd for which the owner holds a licence to use the designation "Tuberculin Tested" in relation to the milk produced from it. The figures involved in the herds mentioned at the end of 1949 are as follows.

No. of herds Attested and for which "T.T." licences have been granted	...	802
„ „ „ Attested only	... ..	145
	Attested	947
„ „ „ Supervised herds	... ..	191
„ „ „ herds not Attested but for which "T.T." licences have been issued		422
	Total	1,560

Owing to the benefits derived from penicillin treatment, the cases of mastitis have shewn a marked decrease. This inflammatory condition of the udder has had a serious effect on the milk yield in past years. The improvement may account for the considerable increase in the gallonage now being produced.

## Milk Consumption,

During the milk year 1948-49 the County produced 86,751,000 gallons of milk. Consumption per head per day of the population is approximately  $\frac{3}{4}$  pint which includes that required by catering establishments and milk bars. Based on this figure the daily consumption is about 44,500 gallons. The surplus for manufacture into milk products, consumption outside the County and other uses is 193,201 gallons per day, approximately 81% of the total daily production of 237,674 gallons.

With regard to the types of milk consumed, it is estimated that this amounts to 80% Pasteurised and "Tuberculin Tested" equally divided and 20% "Accredited" or Undesignated.

As mentioned previously, the Minister of Food may select districts to be called "Specified Areas" in which only designated milks may be sold. The large towns and the districts on their fringe will no doubt be the first to receive attention. Priority of selection will depend upon the number of pasteurising plants in the area, their capacity, also bottling facilities. Existing plants in Somerset are capable of dealing with approximately 45,000 gallons in a five hour run and over 63,000 in an operational period of seven hours. These pasteurising units are fairly evenly distributed throughout the County. From the 1st October, 1950 all milk sold as pasteurised must be sold in bottles or other containers which must be filled on the premises of a person holding a licence under the Regulations. From 1st October, 1954 the bottles or other containers must be filled at the pasteurising premises. In view of these conditions more bottling apparatus is being installed. With sufficient quantities of pasteurised and "Tuberculin Tested" milk being available to meet public demands, Somerset should soon be in a position to meet the requirements of a "Specified Area."

## Biological Sampling.

Bulk sampling from "Accredited" and Undesignated herds resulted in 7 cases where tubercle bacilli was found in the milk. When positive results are obtained the information is passed on immediately to the Veterinary Service of the Ministry of Agriculture and Fisheries for investigation.

The table below gives the details of samples taken and results.

Grade of Milk	Number examined	Number containing tubercle bacilli.	Percentage containing tubercle bacilli	
			1949	1948
Ungraded ... ..	243	7	2.9	3.5
Accredited ... ..	33	1	3.3	2.9
Tuberculin Tested ...	35	—	—	1.5

## Churns, Milk Bottles and Containers.

The tables below summarise the results of the check tests made on churns and milk containers up to the 30th September, 1949 when this ceased to be a general routine matter following the transfer of functions respecting Designated milk producers to the Ministry of Agriculture and Fisheries on the 1st October, 1949.

## MILK CHURNS.

	No. of Samples taken.	Satisfactory.	% Unsatisfactory.	
			1949	1948
Machine washed ...	216	187	13.4	15.1
Hand washed ...	70	67	4.3	6.2
Total ...	286	254	11.2	12.5

The improvement in the cleanliness of churns was maintained, both for those cleansed mechanically and those washed by hand.

## EMPTY CLEANSED BOTTLES.

The appended table shows the results of bottles submitted to a sterility test:—

	Bottles.								
	Machine washed.			Hand washed and sterilised.			Hand washed and not sterilised.		
	No. of Samples taken.	Satisfactory.	% Unsatisfactory.	No. of Samples taken.	Satisfactory.	% Unsatisfactory.	No. of Samples taken.	Satisfactory.	% Unsatisfactory.
From premises licensed for bottling $\frac{1}{2}$ and 1 pint.	55	34	38.2	509	373	26.7	17	7	58.8
From school suppliers $\frac{1}{3}$ pint.	134	95	29.1	254	195	23.2	38	23	39.5
Total ...	189	129	31.7	763	568	25.5	55	30	45.4

The results are not so satisfactory as those obtained in 1948. Whilst the percentage of unsatisfactory bottles machine washed is considerably below those hand washed, there is still plenty of room for improvement.

The routine work of milk container checks and tests for cleanliness carried out over past years has certainly proved worthwhile. This is reflected in the results, particularly those of churns.

In the future it is intended to carry out tests on milk containers as and when the circumstances warrant it.

The Milk Regulations which became operative on October 1st, 1949 contain no legal standard on which the cleanliness of milk containers can be assessed. Every dairy farmer or distributor is responsible under the Regulations in seeing that any appliance coming into contact with milk shall be in a thorough state of cleanliness immediately before use. A state of thorough cleanliness is not defined and as interpretations are liable to vary the position cannot be termed satisfactory.

## MILK IN SCHOOLS SCHEME.

The position in the County as at the 31st December, 1949, is set out in Table A.

Although 'undesigned' milk has not been completely eliminated the number of schools receiving this type has been considerably reduced, viz. from 17 in 1948 to 3 in 1949. The main difficulty with regard to the three schools is their isolated position in relation to premises where designated milk is produced or processed. Every effort is being made, however, to provide the desired grade of milk and it is hoped that during the ensuing year 'undesigned' milk will be eliminated.

### Abbreviations.

Past. = Pasteurised  
H.T. = Heat Treated

T.T. = Tuberculin Tested  
UD. = Undesignated

**Table A.**

Types of Schools (including Divisional Executive Areas).	Total number of each type.	Number of schools and types of milk — with percentages					
		Past and H.T.	%	T.T.	%	UD.	%
Primary ... ..	414	302	72.9	109	26.3	3	0.7
Secondary Modern ...	35	31	88.6	4	11.4	—	—
„ Grammar ... ..	18	14	77.8	4	22.2	—	—
„ Technical ... ..	2	2	100.0	—	—	—	—
Nursery ... ..	10	7	70.0	3	30.0	—	—
Totals ... ..	479	356	74.3	120	25.1	3	0.6

During November, 1949, a survey was made throughout the County to ascertain the number of children taking milk compared with the daily attendance. The information obtained was exceedingly interesting and as will be seen in Table B, of the 54,328 registered pupils, 44,748 or 82.4% were taking milk. I must emphasise, however, that this percentage is only approximate and refers to one month only.

**Table B.**

Types of Schools (including Divisional Executive Areas).	Number of registered Scholars.	Scholars taking milk		Types of Milk Consumed—with Percentages					
		No.	%	Past. and H.T.	%	T.T.	%	UD	%
Primary ... ..	38,604	33,959	87.9	27,908	82.2	5,983	17.6	68	0.2
Secondary Modern ...	10,031	7,086	70.6	6,110	86.2	976	13.8	—	—
„ Grammar ... ..	5,059	3,079	60.9	2,444	79.4	635	20.6	—	—
„ Technical ... ..	240	230	95.8	230	100.0	—	—	—	—
Nursery ... ..	394	394	100.0	270	68.5	124	31.5	—	—
Totals ... ..	54,328	44,748	82.4	36,962	82.6	7,718	17.3	68	0.1

The progress made during 1949 to improve the supply of "Pasteurised" or "Tuberculin Tested" milk to schools has been steadily maintained. This has meant much uphill work but the improvement in the figures gives cause for satisfaction. There now remains only 0.1 per cent. or 80 out of 54,328 registered children who receive 'undesigned' milk, which means that out of approximately 1,865 gallons of milk supplied to the County schools daily, only 3 gallons is 'non designated' ; this milk is boiled before being given to the children.

Samples of milk taken at fortnightly intervals from the schools or school suppliers and submitted to the Public Health Laboratory for test shew an improvement over those taken during last year. This can be attributed to the advisory visits paid to dairy premises when samples have not reached the required standard.

## ICE CREAM

### (Heat Treatment, etc.) Regulations, 1947.

During the year 1,007 samples were submitted for test against 783 in 1948. Hot Mix samples increased by 245 and Cold Mix numbered 21 less. There is no legal standard either chemical or bacteriological for ice cream. The question has been considered but owing to the shortage of ingredients it was not found practicable. Consumption of this sweetmeat is increasing and although the enforcement of the Regulations of 1947 by District Authorities is assisting materially in improving the wholesomeness of ice cream, the sooner legal standards are put into operation the better. Apart from the Inspectorate, the Trade as a whole would welcome the selling of their product under such conditions whereby the real food content would have to be disclosed. The consumer would also be protected against any doubtful traders. Milk is now plentiful and health competition respecting the quantities used in the manufacture of ice cream would tend to a general all round improvement of the product sold.

The provisional Grades into which the samples are placed following test are those suggested by the Ministry of Health. Of the four Grades recommended, it is considered that if ice cream consistently fails to reach Grades I and II it would be reasonable to regard this as indicating defects of manufacture or of handling.

Table XXI gives details of the samples taken and the Grades into which they have been placed.

In 1947 46% of the samples taken fell into Grades I and II, in 1948 the percentage increased to 64%. The table shews that the improvement has been maintained and that the figure has now risen to 70.5%. With regard to Hot Mix samples, 69.9% were found to be satisfactory, whilst Cold Mix tests shewed a more favourable result, 76.5% being placed in Grades I and II. This upgrading of ice cream is no doubt due to the fact that the standard of cleanliness has been raised, particularly respecting manufacture. The methods of sterilising apparatus and utensils have also become more efficient.

TABLE XXI.

District.	No. of premises registered for:		No. of Vendors Sampled.	No. of samples falling into provisional grades								Totals and percentage satisfactory			
				Hot Mix				Cold Mix				Hot Mix		Cold Mix	
	Manufacture and/or Sale	Sale		I	II	III	IV	I	II	III	IV	Total	%	Total	%
URBAN AREAS															
Bridgwater ...	12	35	25	20	13	14	14	1	2	—	—	61	54	3	100
Burnham ...	4	28	16	35	10	5	6	8	1	2	—	56	80	11	81.8
Chard ...	6	2	—	—	—	—	—	—	—	—	—	—	—	—	—
Clevedon ...	6	30	1	—	—	—	1	—	—	—	—	1	—	—	—
Crewkerne ...	2	7	—	—	—	—	—	—	—	—	—	—	—	—	—
Frome ...	5	14	—	—	—	—	—	—	—	—	—	—	—	—	—
Glastonbury ...	1	13	9	16	23	22	15	—	—	—	—	76	51.3	—	—
Ilminster ...	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—
Keynsham ...	2	18	4	5	—	—	—	—	—	—	—	5	100	—	—
Minchhead ...	3	21	4	3	3	1	2	1	1	—	1	9	66.6	3	66.6
Norton Radstock.	8	18	—	—	—	—	—	—	—	—	—	—	—	—	—
Portishead ...	3	17	—	—	—	—	—	—	—	—	—	—	—	—	—
Shepton Mallet...	4	2	6	5	3	2	6	—	—	—	—	16	50	—	—
Street ...	2	13	—	—	—	—	—	—	—	—	—	—	—	—	—
Taunton ...	10	56	7	1	4	—	1	1	—	—	—	6	83.3	1	100
Watchet ...	3	11	6	17	3	2	8	—	—	—	—	30	66.6	—	—
Wellington ...	5	11	6	4	2	2	1	1	3	—	—	9	66.6	4	100
Wells ...	6	28	24	64	28	18	13	10	12	5	3	123	74.7	30	73.3
Weston-s-Mare ...	14	117	27	77	30	19	27	5	5	1	1	153	69.9	12	83.3
Yeovil ...	2	53	16	36	19	2	6	—	—	—	—	63	87.3	—	—
TOTALS ...	98	498	151	283	138	87	100	27	24	8	5	608	69.2	64	79.7
RURAL AREAS															
Axbridge ...	6	76	67	103	40	26	23	5	2	1	—	192	74.4	8	87.5
Bathavon ...	2	29	2	3	1	—	—	1	—	—	—	4	100	1	100
Bridgwater ...	7	30	15	9	11	16	9	—	—	—	—	45	44.4	—	—
Chard ...	—	9	—	—	—	—	—	—	—	—	—	—	—	—	—
Clutton ...	1	27	—	—	—	—	—	—	—	—	—	—	—	—	—
Dulverton ...	2	3	2	1	1	—	—	—	—	—	—	2	100	—	—
Frome ...	1	9	—	—	—	—	—	—	—	—	—	—	—	—	—
Langport ...	—	19	7	3	5	—	—	—	—	—	—	8	100	—	—
Long Ashton ...	7	24	9	2	—	1	1	—	—	1	4	4	50	5	—
Shepton Mallet...	—	13	12	9	8	2	4	—	—	—	—	23	73.9	—	—
Taunton ...	2	10	—	—	—	—	—	—	—	—	—	—	—	—	—
Wellington ...	1	3	1	—	—	—	—	3	1	1	—	—	—	5	80
Wells ...	—	9	—	—	—	—	—	—	—	—	—	—	—	—	—
Williton ...	7	17	11	10	2	1	1	2	—	—	—	14	85.7	2	100
Wincanton ...	4	22	—	—	—	—	—	—	—	—	—	—	—	—	—
Yeovil ...	1	24	10	13	3	2	4	—	—	—	—	22	72.7	—	—
TOTALS ...	41	324	136	153	71	48	42	11	3	3	4	314	71.3	21	66.6
Combined Totals ...	139	822	287	436	209	135	142	38	27	11	9	922	69.9	85	76.5

## CLEAN FOOD CAMPAIGN.

In October the Ministry of Food issued Circular M.F. 18/49 which referred Local Authorities to Section 15 of the Food and Drugs Act, 1938 which empowers them to make byelaws for securing the observance of sanitary and cleanly conditions and practices in connection with the handling, wrapping and delivery of food sold or intended for sale for human consumption and in connection with the sale of food or exposure of food for sale in the open air.

With the circular the Ministry sent new model byelaws called "Ministry of Food, Model Byelaw: Series I."

The New Model is overdue as the one prepared in 1939 has become obsolete. It is in four parts: Part I deals with Interpretation; Part II Handling, Wrapping and Delivery; Part III Sale and Exposure For Sale in the Open Air and Part IV Penalties.

It is anticipated that all Local Authorities will adopt these byelaws; this is essential if uniformity is to be obtained throughout the County. Whilst they contain weaknesses they have much to commend them. An operational period of twelve months should provide such information as is necessary to either stiffen or relax certain parts of the byelaws.

The appended table gives the number of premises registered in the various districts for the preparation and sale of food. It also shews the action taken with regard to the adoption of the Ministry of Food's Model Byelaws.

Good hygiene is good business. Unfortunately most washing up and cooking is done behind closed doors and out of the customer's sight. A glimpse at the conditions would soon decide whether or not his patronage should be continued and progressive traders are aware of this. Good hygiene promotes efficiency and gives confidence to the public.

TABLE XXII.

Local Authority				Registered Premises Section 14, Food and Drugs Act, 1938	Ministry of Food Model Byelaws		
					Adopted during 1949	Adoption recommended	Adoption being considered
<b>Urban Areas.</b>							
Bridgwater	...	...	...	30	—	—	Yes
Burnham-on-sea	...	...	...	14	—	—	Yes
Chard	...	...	...	8	—	Yes	—
Clevedon	...	...	...	20	Yes	—	—
Crewkerne	...	...	...	8	—	Yes	—
Frome	...	...	...	3	—	Yes	—
Glastonbury	...	...	...	16	—	Yes	—
Ilminster	...	...	...	8	—	Yes	—
Keynsham	...	...	...	10	—	—	Yes
Minehead	...	...	...	7	—	—	Yes
Norton Radstock	...	...	...	16	—	Yes	—
Portishead	...	...	...	4	—	Yes	—
Shepton Mallet	...	...	...	15	—	—	Yes
Street	...	...	...	14	—	—	—
Taunton	...	...	...	32	—	—	Yes
Watchet	...	...	...	3	—	—	Yes
Wellington	...	...	...	8	—	Yes	—
Wells	...	...	...	8	—	Yes	—
Weston-super-Mare	...	...	...	53	—	Yes	—
Yeovil	...	...	...	37	—	Yes	—
Totals				314	1	11	7
<b>Rural Areas.</b>							
Axbridge	...	...	...	17	—	—	Yes
Bathavon	...	...	...	22	—	Yes	—
Bridgwater	...	...	...	16	—	—	Yes
Chard	...	...	...	—	—	Yes	—
Clutton	...	...	...	—	—	—	Yes
Dulverton	...	...	...	6	—	Yes	—
Frome	...	...	...	—	—	—	Yes
Langport	...	...	...	10	—	—	Yes
Long Ashton	...	...	...	15	—	Yes	—
Shepton Mallet	...	...	...	1	—	Yes	—
Taunton	...	...	...	15	—	—	Yes
Wellington	...	...	...	6	—	Yes	—
Wells	...	...	...	—	—	Yes	—
Williton	...	...	...	6	—	—	Yes
Wincanton	...	...	...	10	—	Yes	—
Yeovil	...	...	...	19	—	—	Yes
Totals				143	—	8	8
Combined Totals				457	1	19	15

## ANNUAL REPORT OF THE COUNTY PUBLIC ANALYST.

The total number of samples analysed was 2,878 which is an increase compared with the 2,466 received during the previous year and an even greater increase on the number, 1,880, examined during the year 1947.

This increase was mainly in the number of samples submitted under the Food and Drugs Act and other Orders. Many Orders have been made by the Ministry of Food in 1949, some of which prescribe new standards for foodstuffs, such as, tomato ketchup, relish and sauce, curry powder, fruit curd and mincemeat, and, in fact, the number of standards for foodstuffs is added to each year.

In every case it is necessary to carry out additional work on each sample for which a standard is laid down, so that, in addition to the numerical increase, there is the increase in the time taken to deal with the individual samples.

The number of samples of drinking waters, sewages, effluents and river water also shows an increase from 143 in 1946 to 285 in 1949.

### Total number of Samples received.

The following is a summary of the samples examined during the year:—

Samples submitted under the Food and Drugs Act and other Orders:—

By Inspectors—

Number taken formally ... ..	1,359
Number taken informally ... ..	1,064
Appeal to Cow samples ... ..	34
	<hr/> 2,457

Samples submitted under the Merchandise Marks Act ... ..	1
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Samples submitted under the Fertilisers & Feeding Stuffs Act:—

Fertilisers ... ..	20
Feeding stuffs ... ..	7

Drinking water samples for chemical analysis ... ..	118
Sewages, effluents and river water samples ... ..	167
Petrol samples ... ..	31
Miscellaneous samples ... ..	77

Total number of samples	<hr/> <hr/> 2,878
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### Food and Drugs Act, 1938, etc.

It may be of interest to explain the difference between “Formal” and “Informal” samples taken under the above Act and other Food Orders.

Section 70 (1) of the Food and Drugs Act reads:—“A person purchasing a sample of any food or drug with the intention of submitting it to be analysed by a public analyst . . . shall, after the purchase has been completed . . . forthwith inform the person who sold the sample . . . of his intention to have it analysed by the public analyst, and shall then and there divide it into three parts, each part to be marked, and sealed . . . , and shall;

(a) if required to do so, deliver one part to the seller or his agent;

(b) retain one part for future comparison; and

(c) . . . submit one part to the public analyst”.

A sample taken with the above procedure is said to be a “Formal” sample.

An “Informal” sample is one which is purchased without the observance of the formalities described above. The sample is purchased in the ordinary way and submitted to the public analyst. The vendor does not know that it has been taken and no prosecution can be undertaken if it proves to be adulterated.

The total number of samples received for analysis under the above Act and other Food Orders was 2,457 of which 120 or 4.9 per cent. were adulterated or incorrect, compared with 5.7 per cent. in the previous year. The following table sets out in more detail the number of samples examined and the number and percentage adulterated or incorrect:—

	Number Examined.	Number Incorrect.	Percentage Incorrect.
Milk ... ..	1,042	60	5.8
Channel Islands Milk ... ..	57	12	21.0
Milk and Water ... ..	1	—	—
Condensed and Evaporated Milks ... ..	17	—	—
Cheese ... ..	13	—	—
Butter ... ..	52	—	—
Margarine ... ..	21	—	—
Other Edible Fats ... ..	53	1	1.9
Cereals ... ..	77	3	3.9
Baking and Golden Raising Powders ... ..	8	—	—
Sausages ... ..	16	6	37.5
Other Meat and Fish Products ... ..	27	—	—
Meat Extracts ... ..	9	—	—
Tea ... ..	20	—	—
Coffee ... ..	9	—	—
Coffee and Coffee and Chicory Extract and Essences ... ..	27	—	—
Cocoa and Cocoa Compounds ... ..	13	—	—
Malt Products ... ..	5	—	—
Gelatine ... ..	11	—	—
Canned Meat and Vegetables ... ..	31	1	3.2
Canned Fish ... ..	6	—	—
Canned Fruit ... ..	3	—	—
Canned and Powdered Soups ... ..	18	6	33.3
Jam, Marmalade, Honey, etc. ... ..	47	3	6.4
Vinegars ... ..	18	—	—
Pickles and Sauces, etc. ... ..	69	3	4.3
Salad Oil, Dressing and Cream ... ..	14	1	7.1
Condiments ... ..	15	1	6.7
Miscellaneous Samples ... ..	169	8	4.7
Soft Drinks ... ..	43	1	2.3
Ice Cream ... ..	352	—	—
Beer, Cider and Spirits, etc. ... ..	55	4	7.3
Lozenges and Tablets ... ..	27	—	—
Tonics and Tonic Preparations ... ..	4	—	—
Oils ... ..	15	—	—
Ointments ... ..	8	2	25.0
Syrups and Mixtures ... ..	14	2	14.3
Other Drugs ... ..	71	6	8.4
	2,457	120	4.9

#### Adulterated Milk Samples.

The number of milk samples returned as adulterated was 72, including 12 Channel Islands milk samples which were deficient in fat.

Information as to the nature of the adulteration and details regarding individual samples is given in the following summary and table:—

Number containing added water ... ..	28
Number deficient of fat ... ..	43
Number containing added water and deficient in fat ... ..	1
Number containing preservatives ... ..	Nil.

The percentage of adulterated milks including the Channel Islands milk samples is 6.5 which is lower than that for the previous year (7.5 per cent.). The percentage of adulteration for the ordinary milk samples excluding those of Channel Islands milk is even lower, being 5.8 per cent.

No.	Added water or fat deficiency.	Action taken and results of legal proceedings.	No.	Added water or fat deficiency.	Action taken and results of legal proceedings.
15	11.7% Fat ...	Cautioned.	1048	At least 18.7% Fat...	Exonerated by "appeal to cow" samples. Cautioned with advice to improve the quality of the milk.
17	At least 11.4% Water	Fined £5, Advocate's fee £4, Witness £1.	1166	14.3% Fat ...	ditto
18	At least 6.7% Water	Cautioned.	1378	10.6% Water ...	Fined £2, Advocate's fee £3 3s. 0d.
53	At least 12.7% Fat...	Cautioned.		16% Fat ...	
353	At least 6.8% Water	Fined £3, Advocate's fee £5 5s. 0d.		5.4% above that due to added water ...	
390	16.7% Fat ...	Sample taken from a small quantity of milk. To be resampled.	1481	14.6% Water ...	Fined £2, Advocate's fee £1 1s. 0d., Witness 10/-.
443	At least 17% Fat ...	Vendor exonerated by "appeal to cow" sample.	1482	12.7% Water ...	
483	16.7% Fat ...		1548	12.7% Fat ...	Further samples to be taken.
456	13.3% Fat ...	See Nos. 864 to 866.	1646	At least 14.2% Water	Fined 10/-, Advocate's fee £1 1s. 0d.
547	15.3% Fat ...	Retailer partially exonerated by samples taken in course of delivery.	1795	At least 18% Water...	Exonerated by sample in course of delivery, see No. 1814.
585	At least 4% Water by freezing point test	Resample at a future date.	1814	19.5% Water ...	Fined £5, costs £5 5s. 0d.
593	17.5% Water ...	Fined £1, Advocate's fee £5 5s. 0d. Further Advocate's fee £5 5s. 0d. payable to producer.	1854	3% Water ...	Defendant pleaded guilty.
704	10% Fat ...	Resample at a future date.	1855	13.8% Water ...	Court ordered absolute discharge on payment of costs. Advocate's fee £5 5s. 0d., costs 14/-.
705	10% Fat ...	ditto.	1912	At least 4.1% Water	Cautioned.
707	10% Fat ...	Cautioned.	1924	At least 6.6% Water	Fined £5, Advocate's fee £3 3s. 0d.
713	At least 28.3% Fat...	Fined £5, Advocate's fee £5 5s. 0d. Further Advocate's fee £5 5s. 0d. payable to producer.	2128	At least 15.3% Water	See Nos. 2275a and 2273. Fined £3.
860	21% Fat ...	Exonerated by samples in course of delivery Nos. 877 to 880. Cautioned.	2149	At least 7.3% Water by freezing point...	See No. 2128.
864	9% Fat ...	Exonerated by samples in course of delivery Nos. 889, 890 and 892. Cautioned.	2175a	At least 3.5% Water	
865	10.7% Fat ...		2223a	At least 10.6% Water	Cautioned.
866	10% Fat ...	Exonerated by "appeal to cow" sample, No. 885. Producer cautioned.	2236	30.7% Fat ...	
877	17.3% Fat ...		2244	At least 21.2% Water	See No. 2128.
878	20.7% Fat ...	Producer cautioned.	2245	At least 5.3% Water	
879	16.7% Fat ...		2273	At least 5.2% Water	Fined £3.
880	24% Fat ...	Producer cautioned.	2275a	At least 4.6% Water	See No. 2128.
889	9% Fat ...		2385	15.4% Water ...	Defendant pleaded guilty.
890	10% Fat ...	Previous samples genuine. Further sample to be taken.	2386	9.0% Water ...	Fined £5, Advocate's fee £2 2s. 0d., Witness 10/-.
892	5% Fat ...		2425	At least 9.5% Water	Plea of guilty. Presence of added water due to leakage in cooler. Fined £1, Advocate's fee £4 4s. 0d., Witnesses £2 10s. 0d.
930	6.7% Fat ...	Exonerated by sample in course of delivery, No. 946. Cautioned.	2426	At least 8.2% Water	
940	15% Fat ...	Cautioned.	2427	At least 8.0% Water	
946	6.7% Fat ...	Cautioned. Producer advised to take steps to improve the quality of the milk.	2428	At least 7.5% Water	
990	7.3% Fat ...	ditto.			
1042	At least 15% Fat ...	ditto.			

No. 15. The sample was taken from bottled milk and previous samples from the same vendor have been genuine. The explanation given by the producer was that all the strippings were put into one churn and the sample must have been taken from one of the remaining churns. He agreed to mix, in bulk, the whole of the milk and samples taken at a later date were all genuine.

Nos. 17 and 18. A large factory purchased milk from this producer and a sample taken from the factory at the end of last year was found to contain added water. Investigations conducted by the factory showed that the milk from this producer was probably responsible for the water in the factory sample.

Appeal to cow samples taken from 25 cows belonging to the producer were of good quality.

The factory and producer were prosecuted and both pleaded guilty. The former could not rely on Section 83 of the Food and Drugs Act, 1938, as they could not prove that, on the day on which the sample was taken from the factory milk, this producer supplied milk containing added water.

The result of the action against the factory, which was pending from last year, was a fine of £3 and an advocate's fee of £4 4s. 0d.

Nos. 443 and 483. Only T.T. bottled milk is bought by this vendor so that he must have sold it as he received it. Morning and evening appeal to cow samples were taken from 13 cows. The evening appeal samples contained good percentages of fat but two out of three of the morning appeal samples contained only 2.6 per cent. of fat. On investigation it was found that the intervals of milking were very uneven, being 9 and 15 hours.

The vendor and producer were exonerated by the appeal samples. The producer was advised as to the intervals of milking.

No. 547. Three samples taken in course of delivery contained 2.9, 2.93 and 2.87 per cent. of fat respectively. These samples exonerated the retailer and the producer was advised to take steps to improve the quality of the milk.

No. 585. This sample contained 8.33 per cent. of solids-not-fat which is a deficiency equivalent to only 2 per cent. of added water, but the freezing point showed the presence of at least 4 per cent. It was taken from one and threequarters gallons of milk and as the amount of added water was small, no caution was issued, but further samples will be taken at a future date.

No. 593. This was an interesting case as Section 83 of the Food and Drugs Act, 1938, was pleaded by the defence. This section makes a defence available to the defendant where some other person is alleged to be responsible for the commission of the offence charged. Three clear days' notice must be given to the prosecution of the intention to rely on this defence and the person to whose act or default it is alleged that the contravention of the provisions in question was due may be brought before the court in the proceedings.

The fault was alleged to be the producer's but five samples were taken from him in course of delivery all of which proved to be genuine, so that it was difficult to understand how he could be charged with this offence. However it was held by the court that all the requirements of the Section had not been met by the defence and the case against the producer was dismissed on payment of an advocate's fee of £5 5s. 0d.

The further evidence put forward by the defence was held not to be a complete chain from cow to sale and the defendant was fined as stated in the table.

No. 713. Section 83 of the Sale of Food and Drugs Act, 1938, was pleaded by the retailer, but the case against the producer, whom it was alleged was responsible for the contravention, was dismissed on payment of £5 5s. 0d. advocate's fee.

There were 25 cows in the producer's herd and the sample was evening's milk. Two samples were taken in course of delivery and on analysis were found to contain 4.8 and 4.59 per cent. of fat, whereas the original sample contained only 2.15 per cent. This represents an average deficiency of 54 per cent.

Nos. 864 to 866, 889, 890 and 892. Samples Nos. 864 to 866 were sold by the same vendor as sold sample No. 456 all of which were deficient of fat. Seven samples were taken in course of delivery, three of these (Nos. 889, 890 and 892) were also deficient of fat and the original vendor was therefore exonerated as far as adulteration was concerned. The in course of delivery samples were taken at the farm and the milk was considered to be as it came from the cows. The original vendor was cautioned and the producer was advised to take steps to improve the quality of the milk.

Nos. 1854 and 1855. The defendant pleaded guilty because of the fact that the dairy was not locked and a fair had been held in a field within 100 yards. A rear party had remained until three or four days after the day on which the sample had been taken. He suggested that someone probably abstracted milk from and added water to the milk in the churns as he was certain that his employee was quite reliable.

The bench ordered an absolute discharge under the Criminal Justice Act, 1948, as the explanation of the defendant was accepted. He had to pay costs.

No. 1912. This sample was taken from one of the customers of a milk vendor. The latter, on seeing the Inspector, tipped milk into a bucket and when he was asked for a sample of the milk in the bucket refused to sell as he said that it was not for sale. However he did agree to a sample being taken, without sale and as "milk and water". This sample contained 45.0 per cent. of added water. A further sample taken in connection with this case was genuine. No appeal sample was taken and the vendor was cautioned.

Nos. 2128, 2149, 2175a, 2223a, 2244, 2245, 2275a and 2273. (Nos. 2149, 2175a, 2223a, 2244 and 2245 were informal).

Sample No. 2128. The retailer had other milk on the vehicle but served the Inspector from this churn, the milk in which he had received from the producer only a few minutes previously. The Inspector knew that the producer had seen this sample taken and it was therefore decided that an in course of delivery sample would certainly be genuine. Ten *informal* samples were taken of this producer's milk and the results of the analyses of these samples showed that Saturdays and Sundays were the most likely days upon which added water would be present in the milk.

A formal sample No. 2275a was taken from the retailer on a Saturday which was found to contain added water. A sample, No. 2273, in course of delivery, was then taken on the Sunday from the producer which also contained added water and finally an appeal to cows sample was taken and upon analysis was found to be of very good quality containing 5.45 per cent. of fat and 8.8 per cent. of solids-not-fat.

The producer was summoned on samples Nos. 2128 and 2275a under Sections 3 and 83 (3) for selling milk containing added water to the retailer and a second summons was issued under Section 3 for selling milk sample No. 2273 containing added water. He was found guilty on both charges and fined £3 in each case.

No. 2236. The vendor admitted that he did not stir the milk and records showed that samples had been taken from him over a number of years and no previous complaint had been necessary. He was cautioned that any future samples of milk supplied by him which proved to be below the required standard would lead to a prosecution.

### Channel Islands Milk.

The Milk (Control and Maximum Prices) (Great Britain) Order, 1947, defines Channel Islands Milk as milk which (inter alia) contains not less than 4 per cent. of butter fat.

During the year 57 samples of Channel Islands Milk were received and 12 were found to be deficient of fat.

Details of the adulterated samples are as follows:—

No.	Results of Analysis.						Remarks.
1108	15%	deficiency	of	fat	...	...	Results reported to Ministry of Food.
1109	10%	"	"	"	...	...	
1110	6%	"	"	"	...	...	
1209	4.2%	"	"	"	...	...	
1381	8%	"	"	"	...	...	These samples were taken informally. The vendor is a retailer who obtains his supply from the producer from whom samples Nos. 1420 to 1423 were taken.
1383	13.7%	"	"	"	...	...	
1384	11.7%	"	"	"	...	...	
1385	13.7%	"	"	"	...	...	
1420	8.2%	"	"	"	...	...	Results reported to the Ministry of Food.
1421	7.0%	"	"	"	...	...	
1422	15.2%	"	"	"	...	...	
1423	14.5%	"	"	"	...	...	

With regard to the samples Nos. 1420 to 1423 the Ministry of Food reported to us that the producer had taken steps to ensure that the milk he supplies as Channel Islands Milk shall be from cattle which have passed the Breed Society and he is arranging to have his herd inspected by the South-West Guernsey Milk Breeders' Association. The retailer has been advised to arrange for regular tests to be made to ensure that the milk complies with the prescribed standard.

### Average Composition of Milk Samples.

Year.	Total Solids. %	Fat. %	Solids-not-fat. %
1939	12.60	3.77	8.83
1945	12.45	3.67	8.78
1946	12.67	3.77	8.90
1947	12.56	3.74	8.82
1948	12.52	3.64	8.88
1949	12.45	3.71	8.74

The above figures show little variation and in spite of the difficulties of these years and especially that in obtaining feeding stuffs, the great bulk of the milk produced in this County has remained of good quality.

## Other Adulterated or Incorrect Samples.

No.	Description.	Nature of Offence.	Action taken and results of legal proceedings.
116	Liqueur Wine ... ..	Incorrect label. No statement of alcoholic strength.	Letter to manufacturers.
119	Celery Soup (Informal) ...	Infested with beetle and larva of <i>Stegobium paniceum</i> .	Shop visited by Inspector.
150	Piccalilli (Informal) ... ..	Incorrect label. No ingredients stated.	Retailer cautioned.
200	Beef Sausages ... ..	20% deficient of meat ... ..	Fined £10, Advocate's fee £5 5s. 0d.
202	Tincture of Iodine (Informal)	38% deficient of potassium iodide. 36.7% below lower limit.	Cautioned. Sample was old stock manufactured to B.P. 1932.
273	Cake Flour (Unsweetened) (Informal)	Heavy infestation with <i>Tyroglyphus farinæ</i> .	Reported to District Sanitary Inspector. Remainder of stock condemned and surrendered.
367	Boracic Acid Ointment (Informal)	9.3% Boracic acid instead of 1.0%. Conforms to B.P. 1932.	Vendor's attention drawn to the requirements of the B.P. 1948.
369	Tomato Sauce (Informal) ...	Incorrect label. Statement of minimum contents incorrect.	Reported to Chief Inspector of Weights & Measures.
419	Beef Sausage Meat ... ..	12% deficient of meat ... ..	Further samples to be taken.
562	Ammoniated Tincture of Quinine (Informal)	78% deficient of ammonia. 21% excess of quinine sulphate.	Cautioned. Very old stock.
563	Seidlitz Powder (Informal) ...	Blue packet 400 parts lead per million. White packet nil.	Cautioned.
663	Potato Crisps (Informal) ...	Incorrect label. Incorrect weight on wrapper.	Reported to Chief Inspector of Weights & Measures.
679	Vegetable Soup (Informal) ...	Incorrect label. No statement of ingredients.	Reported to Ministry of Food.
682	Orange Bitters ... ..	Incorrect label. No statement of alcoholic strength.	Cautioned.
693	Brandy ... ..	Equivalent to 32.3 % added water...	Fined £5, Advocate's fee £5 5s. 0d.
726	Essence (Informal) ... ..	Incorrect label. No address, no minimum contents stated.	Letter to manufacturers. Reply:—"Very old stock, remainder withdrawn". New label satisfactory. New labels being printed.
833	Neuralgia Mixture (Informal)	Composition does not conform to label.	
837	Spirit of Sal Volatile (Informal)	35.9% deficient of ammonia. 32.1% below lower limit.	Cautioned. (See No. 897.)
897	Spirit of Sal Volatile (Informal)	A. 30.8% deficient of ammonia, 26.8% below lower limit. B. 37.5% deficient of ammonia, 33.9% below lower limit.	Cautioned.
975	French Mustard (Informal) ...	Incorrect label. No ingredients stated.	Ministry of Food exemption until 31.12.47. Sample very old stock. Formal sample to be taken. See No. 1292.
1138	Butter Powder (Informal) ...	Incorrect label. No statement of ingredients or weight.	Old stock—none remaining. New label satisfactory.
1139	Pickling Spice (Informal) ...	Incorrect label. No statement of weight.	Reported to District Sanitary Inspector.
1177	Dried Live Yeast (Informal)...	Slight infestation with <i>Stegobium paniceum</i> .	Reported to Chief Inspector of Weights & Measures.
1183	Vegetable Soup (Informal) ...	Incorrect label. Statement of weight incorrect.	Fined £5, Advocate's fee £5 5s. 0d.
1286	Pork Sausages ... ..	52% deficient of meat ... ..	Reported to Ministry of Food.
1292	Butter Powder (Re 1138) ...	Incorrect label. No statement of ingredients or weight.	
1349	Tonic Wine ... ..	Incorrect label. No statement of alcoholic strength.	Cautioned. Bought at an off-licence premises and was old stock. Only one bottle was left and this was withdrawn from sale.

No.	Description.	Nature of Offence.	Action taken and results of legal proceedings.
1389	Gin ... ..	Incorrect label. No name or address. No alcoholic strength.	Very old stock.
1523	Cheese Straws (Informal) ...	Incorrect label. No statement of name or address or weight.	Old stock. All old wrappers used up. New ones conformed to the requirements of the Order.
1578	Glacé Fruit (Informal) ...	Incorrect label. List of ingredients incorrect.	Importers informed and have taken the matter up with their Australian agents. Information also sent to the Ministry of Food.
2213	Glacé Fruit (Informal) ...		
1666	Sausage Meat ... ..	14% deficient of meat ... ..	Resample at a future date.
1766	Salad Dressing (Informal) ...	Incorrect label. No weight or volume stated.	Enquiries revealed that all other bottles displayed bore a second label giving the required particulars.
1841	Beans in Tomato Sauce (Informal) ...	Incorrect label. No weight or volume stated.	Omission an oversight due to manufacturers. Whole consignment withdrawn until stick-on labels can be supplied.
2008	— Spread Ginger (Informal) ...	No statement of ingredients. Incorrect label.	Reported to Chief Inspector of Weights and Measures. Official sample taken No. 2559.
2041	Jam (Informal) ... ..	Incorrect label. No name or address.	Use of label suspended at once. Manufacturers undertake all future issues to comply with Order.
2161	Meat Soup (Informal) ...	Incorrect label. No ingredients stated.	Information sent to Ministry of Food. Old stock.
2198	Savouries Sausages ... ..	Manufacture and sale an infringement of the Order.	Reported to Ministry of Food.
2202	Mercury Ointment (Informal)	8.3% deficient of mercury. 5.2% below lower limit.	Formal sample taken No. 2364—genuine.
2211	Spiced Tomato Sauce (Informal)	Contains an excessive amount of copper.	Reported to Ministry of Food.
2275	Beef Sausages ... ..	21% deficient of meat ... ..	Fined £3, Advocate's fee £3 3s. 0d.
2276	Porridge Oats (Informal) ...	Incorrect label. Statement of claims does not conform to requirements of the Order.	Information sent to Ministry of Food for necessary action.
2279	Ginger Marmalade (Informal)	Incorrect label. No address ...	Manufacturers admitted the omission. Promised to rectify wording on remaining jars.
2359	Meat Soup Consommé (Informal)	Incorrect weight on label ... ..	All other tins found to be correct weight.
2363	Ammoniated Tincture of Quinine (Informal) ...	76% deficient of ammonia. 18% excess of quinine sulphate.	Strong caution given.
2369	Easton's Syrup (Informal) ...	66.7% excess of strychnine and 19.2% excess of quinine.	Manager interviewed—syrup was very old stock.
2421	Tinned Meat Soup (Informal)	Incorrect label. Incorrect weight...	All other tins weighed and found correct. Manufacturers cautioned.
2538	Honey (Informal) ... ..	Incorrect label. No weight or volume stated.	Manufacturer cautioned and promised to comply with the provisions of the Order in future.

No. 116—Liqueur Wine. This sample was a sweetened intoxicating liquor of satisfactory alcoholic strength, containing 39.4 per cent. proof spirit, but the label was an infringement of the Labelling of Food Order, 1946, as there was no declaration of alcoholic strength.

A letter was sent to the manufacturers and they replied that new labels had been printed and would be sent to all purchasers so that they could affix them to the remainder of their stock. A specimen of the new label, received from them, was satisfactory.

No. 119—Celery Soup (Informal). This sample was unfit for human consumption as it was badly infested with dead beetles and live larva of *Stegobium paniceum*. The inspector paid a visit to the shop and found that the remainder of the stock of this article was also infested and the whole was destroyed.

No. 150—Piccalilli (Informal). The label on this sample was an infringement of the Labelling of Food Order, 1946, as there was no statement of ingredients. The Ministry of Food were asked if the licence issued to the retailers exempted them from conforming to this requirement of the Order and their reply stated that no such exemption was granted by the licence. A firm from whom the retailers purchased the sample were emphatic that none of their products left the factory after the 1st July, 1947, with labels which did not conform with the requirements of the Labelling of Food Order.

The retailers could not produce any evidence proving that the jars of piccalilli were despatched to them after the 1st July and they were therefore cautioned.

No. 563—Seidlitz Powder (Informal). The contents of the packets were correct but those of the blue packet contained 400 parts of lead per million. The B.P. limit is 16.25 parts per million. An official sample was taken but its lead content was satisfactory.

The chemist was interviewed and he stated "There is no possibility of contamination in the shop as Seidlitz Powders are kept in a drawer all by themselves. They were already packed and were bought under warranty from ——. This firm was probably the source of the first sample (Informal). The second (Formal) sample was from stock purchased from another firm. Seidlitz Powders are only bought in 3 dozen lots and none remain of the first sample you took".

The facts were reported to the first-mentioned firm so that they could check up on their stock.

No. 833—Neuralgia Mixture (Informal). The statement of the amounts of the ingredients which appeared on the label attached to the bottle of this sample was incorrect. The inspector paid a visit to the shop to explain the matter to the Chemist, and after further correspondence he has agreed to have new labels printed. He attributed the errors in the amounts to the fact that the mixture was made up in bulk from an old formula and that he had made mistakes in calculating the quantities present in 6 fluid ounces; the amount contained in the bottle in which the sample was sold.

Nos. 837 and 987—Spirit of Sal Volatile (Informal). These samples were evidently made up according to the requirements of the British Pharmacopœia 1932 and the vendors' attention was drawn to the requirements of the new B.P. 1948.

Nos. 1138—Butter Powder (Informal) and 1292 (Formal). This article was described as Butter Powder or Cream Neutraliser. It cost 1/- for 4 ounces and was recommended for use in the preparation of butter. It was therefore an article of food within the meaning of the definition of food given in the Labelling of Food Order, 1946, and should conform to the requirements of this Order.

The sample consisted of sodium bicarbonate together with less than 1.0 per cent. of magnesium carbonate and a trace of colouring matter.

The question of the labelling of the above samples was then taken up with the Ministry of Food who approached the manufacturers and they agreed to amend the label. Proofs of the new labels have been submitted which carry a statement of ingredients, a declaration of weight and in addition the common or usual name has been amended to "Cream Neutraliser".

In connection with the change of name the Ministry have agreed to the use, for a period, of the words "Formerly known as Butter Powder", which will appear immediately below the name in order to assist in identifying the product in its new name.

No. 1286—Pork Sausages. The defendant stated that he weighed out the meat and fat and measured the rusks and water in a tin vessel which delivered a known weight. The ingredients were generally mixed twice but on this occasion, owing to the very hot weather, the mixture was soft and he mixed it once only. The Bench found that there was no intentional fraud but that he must take steps to mix the ingredients adequately.

No. 1389—Gin. There was no statement on the label specifying the name of the packer or labeller, the address at which the business is carried on or the alcoholic strength as required by the Labelling of Food Order, 1946. Enquiries revealed that it was very old stock the suppliers of which could not be traced. The attention of the vendor was drawn to the label on the bottle and she has undertaken to withdraw all bottles of intoxicating liquor not complying with the requirements of the Order and to have them properly labelled before displaying them for sale.

No. 2008— — Spread Ginger (Informal). The manufacturers contended that the article was exempt from the requirements of the Labelling of Food Order and an official sample was taken. They have now undertaken that no further supplies will be dispatched until labelled correctly. They have also agreed to collect the remaining stock held by the retailer concerned.

No. 2161—Meat Soup (Informal). No statement of ingredients appeared on the label and in addition the analysis showed that much less than 6 per cent. of meat was present. The information was sent to the Ministry of Food and the reply stated "Before the Code of Practice was issued, this product was known to contain less than 6 per cent. of meat and no statement of ingredients was required. New labels submitted in June, 1948, were satisfactory and the sample must therefore be old stock". Further enquiries revealed that it was old stock.

No. 2276—Porridge Oats (Informal). The statement of claims to which objection was taken did not appear on the labels submitted to the Ministry of Food for approval. The manufacturers have undertaken to omit this statement on the new labels.

No. 2369—Easton's Syrup (Informal). This was the second occasion on which a sample from this shop had been carelessly dispensed. The owner has recently died and the manager stated that the two mixtures from which the syrup was made have been exhausted and were both very old stock. When the business is passed to a new owner he will take steps to advise him of the careless dispensing.

### Statutory Instruments.

Since the beginning of 1948 the "Statutory Rules and Orders" have been known as "Statutory Instruments" and a number of new "Instruments" have been made during 1949.

The Mineral Oil in Food Order, 1949, prohibits the use of mineral oil in the preparation of food intended for sale for human consumption and no person may sell or have in his possession for sale for human consumption any article of food containing any mineral oil. The Order makes a limit of 0.2 per cent. by weight of mineral oil which must not be exceeded, and the presence of which must not be due to its inclusion as an ingredient but to its use as a lubricant or greasing agent in the preparation of the article of food.

This Order will put a stop to the practice of using mineral oil in the preparation of foodstuffs which had previously been giving us much concern.

The Food Standard (Table Jellies) Order, 1949, prescribes standards for table jelly tablets, table jelly crystals and table jelly compounds. Table jelly tablets must contain not less than 72 per cent. by weight of soluble solids and not less than 63 per cent. of sugar; table jelly crystals must not contain less than 84 per cent. of sugar and the compounds not less than 50 per cent. also, in the case of the latter articles, if starch is present then it must not amount to more than 20 per cent. by weight.

All jellies must now comply with a "setting test" which is described in detail in the Schedule to the Order, but this test has been subject to some criticism.

The Food Standard (Curry Powder) Order, 1949, has prescribed the following standards for curry powder:—

- (a) Curry Powder shall contain not less than 85 per cent. of spices, aromatic seeds and aromatic herbs, and
- (b) Curry Powder shall not contain lead in excess of 10 parts per million.

This standard allows the inclusion of farinaceous materials and/or salt up to a maximum of 15 per cent. Some manufacturers hold the opinion that the other ingredients improve the article.

The standard will not come into operation as far as retail sales are concerned until the 1st October, 1950.

Tomato ketchup, catsup, sauce, etc., have also received attention and The Food Standards (Tomato Ketchup) Order, 1949, prescribes standards for these articles. They may not contain less than 6.0 per cent. by weight of tomato solids and may not contain any fruit or vegetables other than tomato except onions, garlic and spices added for flavouring purposes.

A limit of not more than 50 parts per million of copper on the dried total solids is also imposed.

Again, the operation of this Order is the 1st day of October, 1950.

The only other Order which I need mention is the Food Standards (Preserves) (Amendment) Order, 1949, which came into operation on the 16th October, 1949. This Order prescribes standards for fruit curd and mincemeat.

For fruit curd the Order lays down that it shall contain not less than 4 per cent. of fat, 0.33 per cent. of citric acid, 0.125 per cent. of oil of lemon (0.25 per cent. of oil of orange) and not less than 1.0 per cent. of dried whole egg (or its equivalent).

For mincemeat the standard is:—100 parts shall contain not less than 0.5 part of acetic acid, not less than 30 parts of added sugar, not less than 30 parts of dried fruit or peel and not less than 2.5 parts of suet or equivalent fat.

The percentage of soluble solids must not be less than 65 in both cases.

### Ice Cream.

The Ministry of Food from November, 1948, made available to ice cream manufacturers, additional supplies of sugar and in certain cases of fat. Those manufacturers wishing to avail themselves of the additional supplies have been required to sign an undertaking that their ice cream will have a minimum fat content of 2.5 per cent.

Local Authorities have been asked to co-operate in securing the observance of the undertaking by supplying copies of analyses giving the fat contents of any ice cream samples taken in their area.

Your Chief Inspector of Weights and Measures has arranged for samples to be taken throughout the County and has sent the required information regarding each sample to the Ministry of Food.

Three hundred and fifty-two samples have been received and the following table gives for each month the number of samples containing the same amounts of fat or the frequency with which each percentage of fat occurred:—

Range of fat content %	No. of samples.							
	May.	June.	July.	August.	September.	October.	November.	December.
Less than 1.0	0	0	0	0	0	0	0	0
1.0— 2.4 ...	0	0	3	1	1	0	0	0
2.5— 7.9 ...	33	28	21	36	26	21	10	10
8.0—11.9 ...	22	17	21	15	20	20	15	11
12.0 and over	1	2	1	3	3	5	2	3
Total ...	56	47	46	55	50	46	27	24

One sample received in April contained 3.7 per cent. of fat.

The circular from the Ministry of Food states that the use of a minimum fat content of 2.5 per cent. for this purpose must not be interpreted as meaning that this figure is regarded as a proper standard for ice cream.

This cannot be stressed too strongly as it is in fact a very low percentage. It was generally accepted in the pre-war period that a satisfactory ice cream should contain at least 8.0 per cent. of fat.

There has been a marked improvement in the quality of this product during 1949 and only 5 or 1.4 per cent. of the samples had a fat content lower than 2.5 per cent. and only 10 or 2.8 per cent. lower than 3.0 per cent., whereas in 1948, the number of samples containing less than 3.0 per cent. of fat was 49 per cent.

### Merchandise Marks Act.

One sample of starch was submitted under the above Act which proved to be rice starch and was satisfactory.

### Fertilisers and Feeding Stuffs Act.

The total number of samples received was 27, details of which are given below:—

#### Fertilisers (20).

Fertiliser	...	...	...	...	...	5
Calcium Cyanamide	...	...	...	...	...	1
Bone Meal	...	...	...	...	...	4
Sulphate of Ammonia	...	...	...	...	...	5
Superphosphate of Lime	...	...	...	...	...	1
Dried Blood	...	...	...	...	...	2
Sulphate of Potash	...	...	...	...	...	1
Muriate of Potash	...	...	...	...	...	1
Total						<u>20</u>

Two of the five samples of fertilisers were mixed sludge and of little value as fertilisers; one of the remaining samples consisted of very impure calcium carbonate and the other two were guaranteed compound fertilisers containing nitrogen, phosphates and potash, both of which were satisfactory.

The sample of cyanamide contained an amount of nitrogen which was very near to that of the guarantee and the four samples of bone meal were satisfactory. Two of these were guaranteed with respect to their nitrogen and phosphate contents and the amounts found were well within the limits allowed.

The nitrogen content of the five samples of sulphate of ammonia ranged from 20.7 to 21.0 per cent., three of these were sold with guarantees and all were satisfactory. None of the samples contained any free acidity.

Both samples of dried blood contained 12.9 per cent. of nitrogen which was very close to that guaranteed in each case.

The sulphate of potash fertiliser contained 48.7 per cent. of potash ( $K_2O$ ) which was very near to the guaranteed amount of 48.5. The muriate of potash contained 48.3 per cent. of potash ( $K_2O$ ) which was satisfactory. The sample of superphosphate contained 20.3 per cent. of soluble phosphate.

Apart from three samples, from a private source, all were taken informally and, in the case of six of these, no statement showing the amount of the essential constituents was seen by the Inspector. The attention of the vendors of these six samples was drawn to the requirements of the Act with regard to the sale of small quantities.

#### Feeding Stuffs (7).

Dairy Cake	...	...	...	1	Formal.
Milk Substitute	...	...	...	2	Informal.
Barley Screenings	...	...	...	1	„
Codmeal	...	...	...	1	„
Cod Liver Oil Condiment	...	...	...	1	„
Poultry Spice	...	...	...	1	„
Total				<u>7</u>	

The Dairy Cake was taken and submitted formally because of alleged injury to cattle. Its composition satisfied the conditions as to content laid down in Part A, 1, of the Second Schedule of the Feeding Stuffs (Regulation of Manufacture) Order, 1948 (Amendment) Order, 1948, with the exception that the amount of chlorine expressed as sodium chloride was 44 per cent. below the lower limit of 1.0 per cent. The sample contained no arsenic, no excessive amount of soluble salts, sand or silicious matter and no castor oil seed, mustard or charlock or cyanogenetic glucosides. It was suitable for feeding to cattle.

The two milk substitutes consisted mainly of dried skimmed milk with added milk sugar, maize meal and a very small amount of liver oil.

The sample of barley screenings was fairly satisfactory. It contained an appreciable amount of carbohydrate and protein and a small amount of oil.

The remaining three samples of feeding stuffs were all satisfactory.

### Chemical Analysis of Drinking Waters.

One hundred and sixteen samples of water and two samples of soil were received and details of these are given below:—

For general analysis ... ..	72
S. R. & O. 2342 analysis ... ..	1
Samples for special tests ... ..	41
Samples of soil ... ..	2
Drinking water deposits ... ..	2

The samples of soil were submitted for examination in connection with the corrosion of pipes. Both samples were slightly acid.

The samples for special tests included those for determining the action of the water on metals and investigations of complaints of smell and taste. In one such case a reservoir was contaminated with petrol and in another the taste was due to the action of chlorine on algæ. One sample contained worms which belonged to the Annelida class and genus Nais.

A water of rather unusual composition was received during the year. It gave the following results on analysis:—

Total solids ... ..	1,810 parts per million.
Alkalinity (as $\text{CaCO}_3$ ) ... ..	470 „ „
Total hardness (as $\text{CaCO}_3$ ) ... ..	265 „ „
Chlorides (as $\text{NaCl}$ ) ... ..	300 „ „
Sulphates in large amount.	
Free carbon dioxide ... ..	11 „ „
pH 7.9	

No precipitate was obtained on boiling showing that there was no temporary hardness and the mineral analysis showed that its composition was probably:—

Sodium bicarbonate ... ..	720 parts per million.
Calcium chloride ... ..	150 „ „
Magnesium sulphate ... ..	100 „ „
Sodium chloride ... ..	300 „ „
Sodium sulphate ... ..	1,000 „ „

The addition of an excess of sodium bicarbonate produced a precipitate on boiling.

### Sewages, Effluents, etc.

A summary of the hundred and sixty-seven samples is given below:—

Sewages	...	...	...	...	20
Effluents (Sewage and Trade)	...	...	...	...	57
River and stream waters	...	...	...	...	84
Miscellaneous	...	...	...	...	6

The collection of records of the changes which take place in rivers and streams owing to the discharge into these watercourses of sewage and trade effluents has been continued during the year.

Two groups of sewage samples were received from two sewage works. They were representative of the effluent for each 24 hours on five consecutive days. These samples were submitted in connection with the preparation of plans for the reconstruction of the sewage works.

In consequence of a complaint that a whitish deposit was forming on the river bed around the point of entrance of an effluent from an industrial plant, a sample of the effluent was submitted for examination. This was found to contain an excessive amount of solids in suspension, namely, 87 parts per hundred thousand. The company were able to improve this effluent and a later sample contained only 3.2 parts per hundred thousand which was satisfactory.

### Motor Spirit (Regulation) Act, 1948.

Thirty samples of petrol were received and one sample of fuel. All the petrol samples, except one, contained diphenylamine and all were proved to be Motor Spirit within the meaning of the Regulations.

The sample of "fuel" consisted mainly of paraffin together with approximately 20 per cent. of lubricating oil.

### Miscellaneous Samples.

Seventy-seven samples were received from various sources during the year. The following is a summary of these samples:—

Foodstuffs	...	...	...	...	...	36
Spirits	...	...	...	...	...	3
Samples from the School Meals Section	...	...	...	...	...	33
Ditch water	...	...	...	...	...	1
Viscera for poisons	...	...	...	...	...	2
Anti-lice dusting powder	...	...	...	...	...	1
Chloros	...	...	...	...	...	1

The majority of the foodstuffs were submitted in connection with complaints. Samples of timed fish roe paste and luncheon roll were found to be satisfactory. The contents contained not more than one grain of tin per pound and were normal. The contents of two tins of tomato paste contained large amounts of tin which amounted to 5.8 and 8.0 grains per pound respectively. These amounts were greatly in excess of the generally accepted limit of 2 grains per pound.

Two jars of preserved ginger in syrup had deteriorated to such an extent as to be no longer of saleable value. Yeast cells were present in both samples which had fermented and the jars were under great pressure.

One sample of Whisky Liqueur was of satisfactory alcoholic strength of 59.5 per cent. proof spirit.

Two samples of whisky were received one of which was alleged to contain methylated spirits. No methylated spirits was found in either sample and their alcoholic strengths were satisfactory.

A Channel Islands milk sample submitted from a private source contained 4.2 per cent. of fat and was therefore satisfactory. Ten samples of milk were also received from private sources. Two of these milks were 20 and 8.3 per cent. deficient of fat respectively and one other was sour.

A decorated iced cake was received from a local Food Enforcement Inspector. The weight of the cake and the total percentage of oils, fats, sugar and dried egg solids made this article subject to the provisions of the Flour Confectionery (Control and Maximum Prices) Order, 1946 (Amendment No. 4) Order, 1948, which controls the retail price of the article.

Three further samples from a private source were of sausage, brawn and stock. The sausages contained 52 per cent. of meat, the brawn 72 per cent. and the protein content of the stock was equivalent to 10.5 per cent. of defatted meat.

One sample of sugar was alleged to have a peculiar taste and was found to contain 20 per cent. of salt which without doubt accounted for the taste. One sample of fat was received and was proved to be horse fat.

The ditch water contained an oil consisting of paraffin and probably a hydrocarbon grease. The sample of chloros was satisfactory and contained 14.7 per cent. of available chlorine.

The anti-lice dusting powder was submitted in connection with the death and illness of some calves which had been dusted very thoroughly in an enclosed space. It consisted of 5 per cent. of benzene hexachloride and 95 per cent. of aluminium silicate (kaolin or china clay). The animals probably breathed in an appreciable quantity of the powder.

The School Meals Section submitted various articles for examination, the largest number being in connection with tenders from firms. On the whole, the samples were quite satisfactory.

Other samples were sent in because of complaints from the kitchens. Two of sago tasted slightly musty when cooked with milk and sugar. A deposit had formed on plates at one kitchen which was found to be calcium carbonate. A piece of red substance was found in a school meal—was it lipstick? It was proved to consist of about 45 per cent. of calcium sulphate and a red dye-stuff. It possessed no scent and was brittle. These were not the characteristics of lipstick but were those of grease paint, pencil or crayon.

Two specimens of viscera were received, one the viscera of a pig and the other of a pullet. The death of the pig was alleged to be due to zinc phosphide or other rat poison and that of the pullet to zinc phosphide. The viscera of the pig possessed no odour of phosphide. Microscopical examination revealed starch and other cells of wheat but no evidence of the presence of red squill was found. No arsenic, strychnine or other alkaloidal poisons were found and a negative chemical test for phosphine was obtained. The amount of zinc found in the stomach and contents was equivalent to 15 parts per million which is below the amounts reported to be present in normal animal viscera.

The analysis therefore did not reveal the cause of death.

On the other hand, the viscera of the pullet did possess an odour of phosphide and its presence was confirmed. 880 parts per million of zinc were found, which is equivalent to 1,055 parts per million of zinc phosphide. These results confirmed that zinc phosphide was the cause of death.

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